

# ***Hustler Z***

## ***Parts Manual***



*Hustler Turf Equipment*

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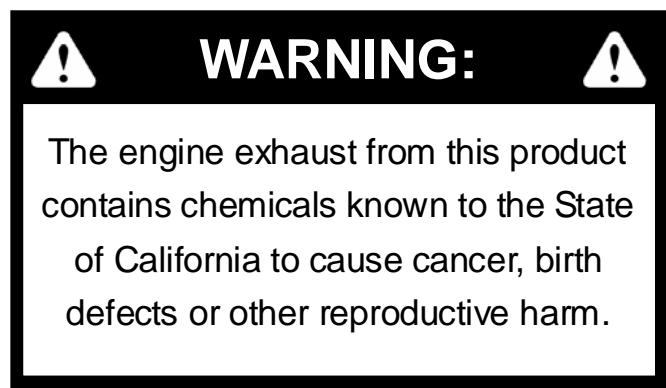
*P.O. Box 7000*

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*Hesston, Kansas*

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*67062-2097*



**IMPORTANT:** This engine is not equipped with a spark arrester muffler. It is a violation of California Public Resource Code Section 4442 to use or operate this engine on any forest-covered, brush-covered, or grass-covered unimproved land. Other states or federal areas may have similar laws.

This spark ignition system complies with Canadian ICES-002.

**The Engine Owner's Manual provides information regarding the U.S. Environmental Protection Agency (EPA) and the California Emission Control Regulation of emission systems, maintenance and warranty.**

**Keep Engine Owner's Manual with your unit. Should the Engine Owner's Manual become damaged or illegible, replace immediately. Replacements may be ordered per the information found in the Product Information section of the owner's manual.**

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# Chapter 1

## General Information

*This Manual covers Hustler Z models 927723A/B, 927749A/B, 927756A/B, 927772A/B, 927798A/B, 927806A/B, 927814A/B, 928432, 928853A/B, and 928861A/B, with serial numbers higher than 07020000.*

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## Frequently Ordered Parts

<b>PART NO.</b>	<b>DESCRIPTION</b>
027912	Lubrizol 7 oz. Bottle
027920	Lubrizol 10 oz. Bottle
768341	Hydraulic Oil Filter
781443	Pump Drive Belt
797696	Blade, F18.50"-H-F-CW (54" Side Discharge Deck)
794685	Blade, F20.50"-H-F-CW (60" Side Discharge Deck)
798496	Blade, F22.50"-H-F-CW (66" Side Discharge Deck)
601012	Blade, F18.50"-L-F-CW (54" Rear Discharge Deck)
601013	Blade, F18.50-L-F-CCW (54" Rear Discharge Deck)
797928	Belt, B-Section (54" Side Discharge Deck)
797720	Belt, B-Section (60" Side Discharge Deck)
797936	Belt, B-Section (66" Side Discharge Deck)
601015	Belt, B-Section (54" Rear Discharge Deck)
068478	Fuel Filter
785261	Main Air Filter Element (Except 29 HP Kawasaki)
785279	Safety Air Filter Element (Kawasaki 25 HP w HD)
601652	Main Filter Element (Kawasaki 29 HP)
601653	Safety Filter Element (Kawasaki 29 HP)
772079	Kawasaki Engine Oil Filter
785634	Honda Engine Oil Filter
747303	Kohler Engine Oil Filter

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## Service Literature

<b>PART NO.</b>	<b>DESCRIPTION</b>
601656	Owner's Manual
785642	Honda 18/20/24 Engine Owner's Manual
778423	Kawasaki 19–25 hp Engine Owner's Manual
796805	Kawasaki FD731V (26 HP) Engine Manual
601637	Kawasaki 29 HP Engine Manual
742684	Kohler Engine Owner's Manual

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*Note: When ordering parts, you must use the part number as shown for each part, not the index number. Always give the model and serial number to your parts and service representative.*

*Note: Items sold in bulk such as seals and hoses are sold by the foot.*

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## **Using this manual**

Illustrations used were current at the time of printing, but subsequent production changes may cause your machine to vary slightly in detail. Excel Industries, Inc. reserves the right to redesign and change the machine as deemed necessary, without notification. If a change has been made to your machine which is not reflected in this parts manual, see your Hustler dealer for current information and parts.

## **Options Available From Your Dealer**

<b>PART NO.</b>	<b>DESCRIPTION</b>
108556	"A" Baffles Kit XR7 (66" Side Discharge Deck)
108555	"A" Baffles Kit XR7 (60" Side Discharge Deck)
108554	"A" Baffles Kit XR7 (54" Side Discharge Deck)
108551	"B" Baffles Kit XR7 (66" Side Discharge Deck)
108550	"B" Baffles Kit XR7 (60" Side Discharge Deck)
108549	"B" Baffles Kit XR7 (54" Side Discharge Deck)
108561	Containment Baffles Kit (66" Side Discharge Deck)
108560	Containment Baffles Kit (60" Side Discharge Deck)
108559	Containment Baffles Kit (54" Side Discharge Deck)
108565	Mulch Kit (66" Side Discharge Deck)
108563	Mulch Kit (54/60" Side Discharge Deck)
106880	Stripe Kit (66" Side Discharge Deck)
107359	Stripe Kit (54/60" Side Discharge Deck)
798512	Gator Blade, 22.50"-GAT-F-CW (66" Side Discharge Deck)
794230	Gator Blade, 20.50"-GAT-F-CW (60" Side Discharge Deck)
797712	Gator Blade, 18.50"-GAT-F-CW (54" Side Discharge Deck)
798504	Mulch Blade, 22.50"-MUL-F-CW (66" Side Discharge Deck)
794214	Mulch Blade, 20.50"-MUL-F-CW (60" Side Discharge Deck)
797704	Mulch Blade, 18.50"-MUL-F-CW (54" Side Discharge Deck)
102186	Deck Lift Kit MMZ
353961	Steering Extension Kit
357897	Hitch Kit MMZ
799270	Flex Fork Kit
789537	Semi-Pneumatic Tire/Wheel Assy 13x6.50-6
927582	Snow Blade
928218	Bac-Vac Catcher Assy (Requires additional kits for installation, see dealer)
381475	Z Light Kit

## **Hardware Description Codes & Abbreviations**

The following codes are used throughout this parts manual. Refer to this list when ordering parts.

<b>ABBREVIATION</b>	<b>DESCRIPTION</b>	<b>ABBREVIATION</b>	<b>DESCRIPTION</b>
CB	Carriage Bolt	MB	Machine Bushing
CE	Clevis Pin	MS	Machine Screw
CP	Cotter Pin	NT	Nut
CS	Cap Screw	SC	Self Tapping Cap Screw
CW	Cup Washer	SH	Socket Head
FDRW	Fender Washer	SB	Shoulder Bolt
FW	Flat Washer	SS	Set Screw
HX	Hex Head	OD	Outside Diameter
LW	Lock Washer	ID	Inside Diameter

## **Standard Torques**

The following chart lists the standard torque values for the threaded fasteners found in this manual. Torque all cap screws, nuts and set screws to these values unless a different torque is shown in the Notes section next to the fastener.

<b>SIZE</b>	<b>FT-LBS</b>	<b>NM</b>	<b>SIZE</b>	<b>FT-LBS</b>	<b>NM</b>
.250	8.2	11.1	M3	1	1.3
.312	17	23	M4	2.2	3
.375	30	40	M5	4.5	6.1
.438	48	65	M6	7.7	10.4
.500	73	99	M8	18.5	25
.562	105	143	M10	37	50
.625	145	200	M12	64	87
.750	260	350	M14	80	108.5
.875	420	565	M16	160	215
1.00	625	850	M20	320	435
			M24	555	750

### **NOTE:**

**Loctite® 592 to be used on all pipe threads.**  
**Lubricate all grease zerks.**



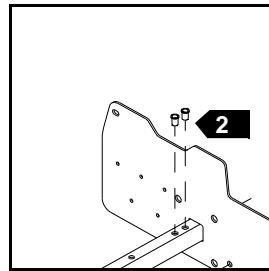
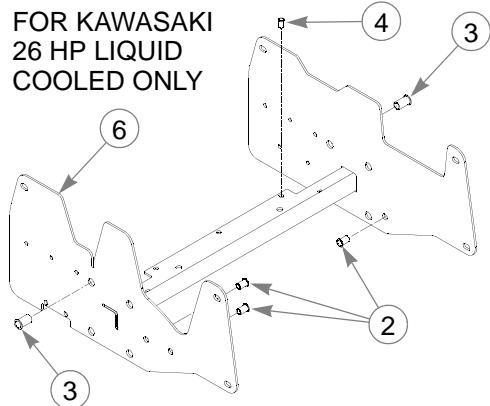
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## **Chapter 2 Contents**

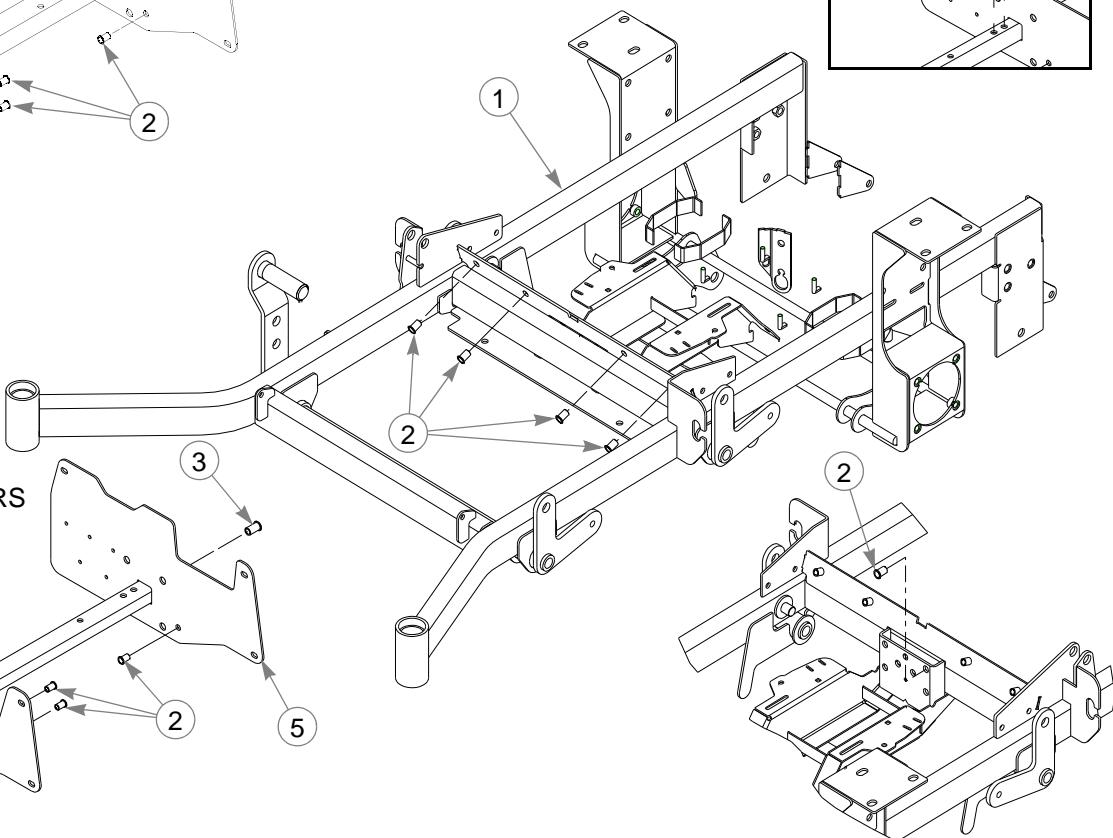
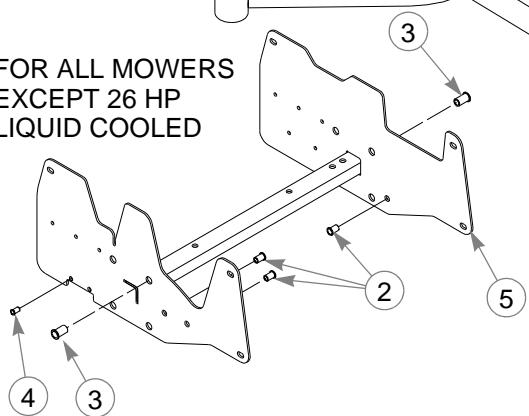
Rivet Nut Installation . . . . .	2-2
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## Rivet Nut Installation

FOR KAWASAKI  
26 HP LIQUID  
COOLED ONLY



FOR ALL MOWERS  
EXCEPT 26 HP  
LIQUID COOLED

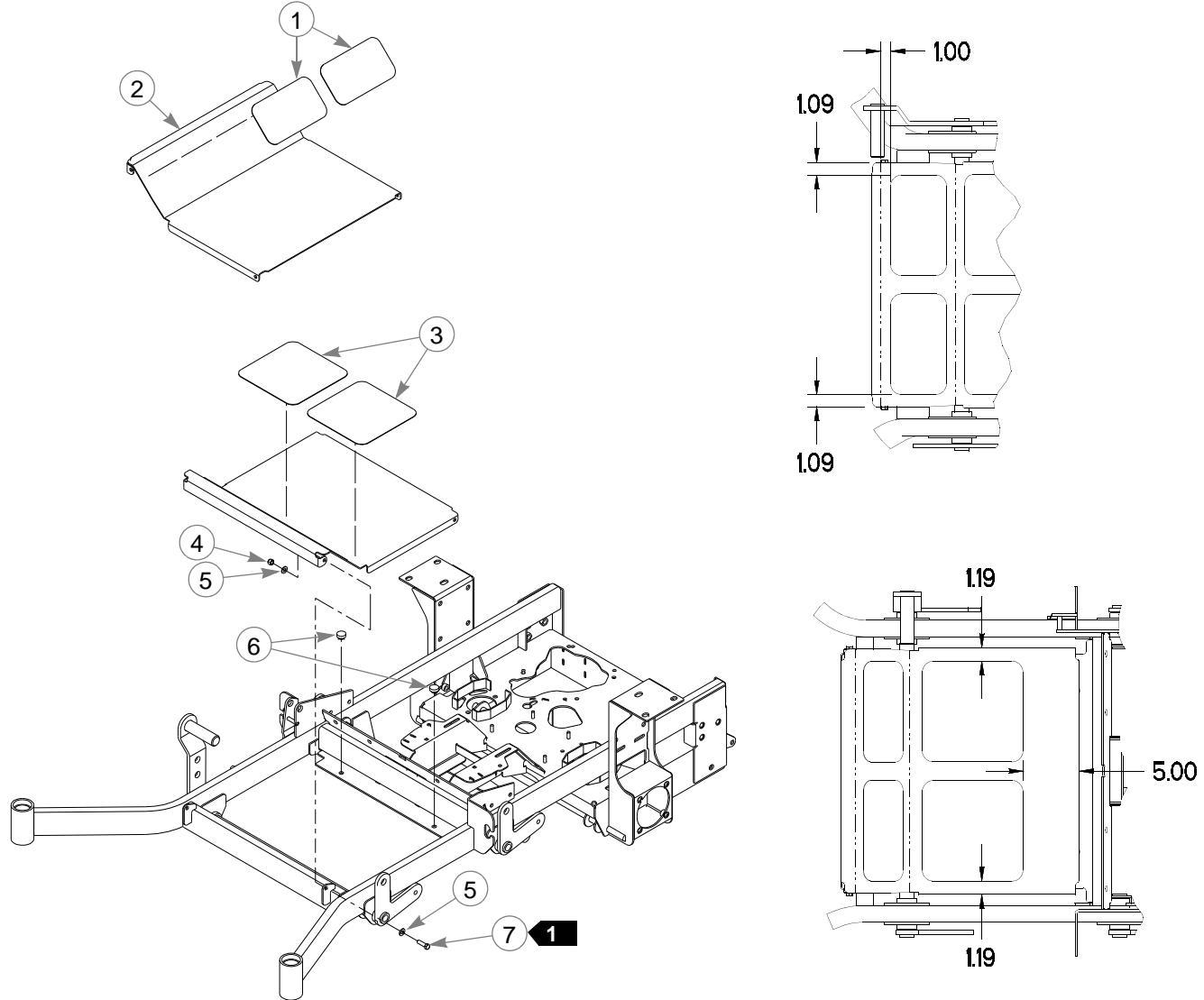


ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	548032	107701	1	TRACTOR FRAME (54" SIDE DISCHARGE)
	547760	106211	1	TRACTOR FRAME (60" SIDE DISCHARGE)
	547752	106039	1	TRACTOR FRAME (66" SIDE DISCHARGE)
	548545	108093	1	TRACTOR FRAME (54" REAR DISCHARGE)
2	808493	808493	13	3/8-16 THREAD RIVET NUT
3	600961	600961	8	1/2-13 THREAD RIVET NUT
4	808477	808477	2	1/4-20 THREAD RIVET NUT (KAW AIR COOLED ONLY)
4	808477	808477	3	1/4-20 THREAD RIVET NUT (KAW LIQUID COOLED ONLY)
1	547950	106732	1	XR7 MMZ SEAT SUPPORT
1	6	549303	1	SEAT SUPPORT

### NOTES:

1. Seat supports 547950 and 549303 include rivet nuts.
2. Mowers with serial numbers prior to 08010000 require (2) of 808493 (Rivet Nut 3/8-16 thread).

## Footrest Assembly



ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	359547	359547	2	STEP TREAD
2	395533	395533	1	FLOOR
3	305615	305615	2	PLATFORM STEP TREAD
4	086660	086660	2	NT .375-16 HX LK NY
5	767954	767954	4	FW .406 X .812 X .060 SAE HD ZN
6	781880	781880	2	RUBBER BUMPER
7	052860	052860	2	CS .375-16 X 1.250 HX G5 ZN

### NOTES:

1. Do not tighten, Item 2 (348276 Floor) must be able to pivot on these bolts.



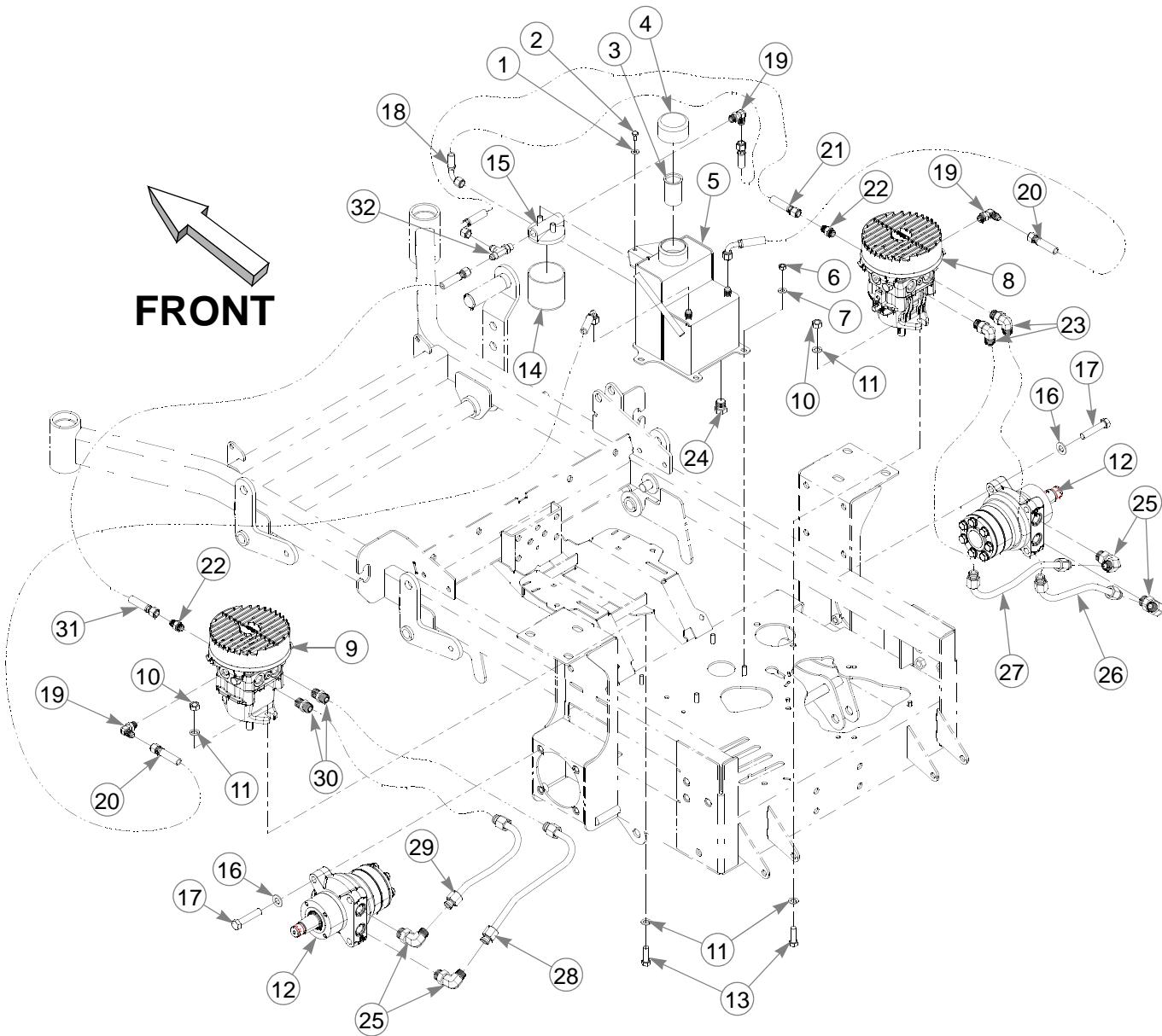
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## **Chapter 3 Contents**

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## **Hydraulic System Installation—S/N 07120009 and higher**



## **Hydraulic System Installation—S/N 07120009 and higher**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	768515	768515	2	FW .281 X .625 X .051/.080 HD ZN/YL
2	055947	055947	2	CS .250-20 X .500 HX G5 ZN
3	032771	032771	1	STRAINER
4	032763	032763	1	BREATHER CAP
5	548636	349860	1	RESERVOIR
6	034272	034272	4	NT .312-18 HX G5 ZN
7	768523	768523	4	FW .343 X .687 X .051/.080 HD ZN/YL
8	601133	601133	1	PUMP, HYD 12CC W/ FAN RH
9	601134	601134	1	PUMP, HYD 12CC W/ FAN LH
10	041707	041707	4	NT .437-14 HX G5 ZN
11	704742	704742	8	FW .453 X .812 X .060 ZN
12	600922	600922	2	MOTOR, HGM-15E-3138
13	705186	705186	4	CS .437-14 X 1.375 HX G5 ZN
14	768341	768341	1	FILTER ELEMENT
15	768333	768333	1	FILTER HEAD
16	767962	767962	8	FW .531X 1.063X.090 SAE
17	008573	008573	8	CS .500-13X2.500 HX G5
18	781575	N/A	1	-6STR -6 90°, PUSHLOC HOSE 4.75"
19	763946	N/A	3	90°, -6 O-RING/-6 JIC FITTING
20	601252	N/A	2	CASE DRAIN ASSY
21	781591	N/A	1	-6STR -6 90°, PUSHLOC HOSE, 15.00"
22	779132	N/A	2	STR-6MORB/-6JIC FITTING
23	781542	N/A	2	90°,-8MORB/-8MSL FITTING
24	781658	N/A	1	STR-8-MORB/HEX PLUG
25	781526	N/A	4	90°, -10MORB/-8MSL FITTING
26	781500	N/A	1	RIGHT LOOP/RP-BM HYDRO TUBE
27	600915	N/A	1	TUBE, LP-TM RT LOOP
28	781484	N/A	1	LEFT LOOP/RP-BM HYDRO TUBE
29	781476	N/A	1	LEFT LOOP/LP-TM HYDRO TUBE
30	781534	N/A	2	STR-8MORB/-8MSL FITTING
31	781518	N/A	1	-6STR -6STR PUSHLOC HOSE, 9.00"
32	763953	N/A	1	-6 O-RING/-6JIC T FITTING
	N/A	600913	1	HYDRAULIC KIT (INCLUDES 16-31)

### **NOTES:**

1. Hydraulic system capacity is 5 US quarts of 20W50 motor oil. Fill reservoir to within 1" of top of Item 3 (032771 Strainer). See "Hydraulic system" on page 10-24.

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#### HYDRAULIC SYSTEM CHARGING PROCEDURE

1. Set handles in the neutral position.
2. Start engine at idle.
3. Let run for a minimum of 30 seconds.
4. Stroke handles to forward position.
5. If motors do not turn in 15 seconds return handles to neutral and repeat step 3 and 4 (one time).
6. If motors do not turn after second attempt, shut off the engine and check for oil at the pump.
7. Increase throttle to half speed and work handles through forward and reverse position until the motor operates smoothly throughout the entire speed range.

**Note:**

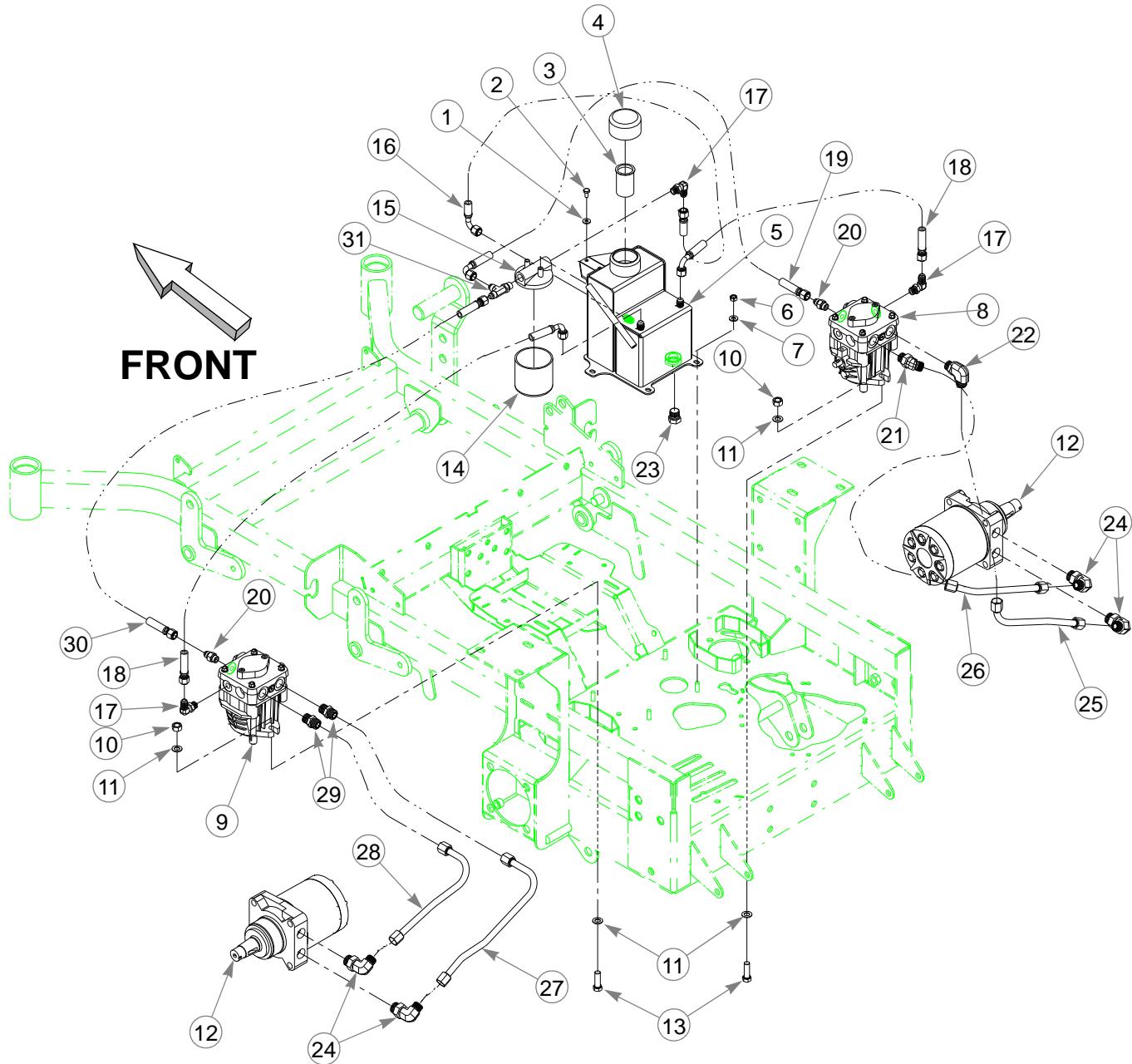
Seal Kit for hydraulic pump; 727756 (BDP10 Overhaul Seal Kit)

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## Hydraulic System Installation—S/N prior to 07120009



## **Hydraulic System Installation—S/N prior to 07120009**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	768515	768515	2	FW .281 X .625 X .051/.080 HD ZN/YL
2	055947	055947	2	CS .250-20 X .500 HX G5 ZN
3	032771	032771	1	STRAINER
4	032763	032763	1	BREATHER CAP
5	548636	349860	1	RESERVOIR
6	034272	034272	4	NT .312-18 HX G5 ZN
7	768523	768523	4	FW .343 X .687 X .051/.080 HD ZN/YL
8	781062	781062	1	HYDRO-GEAR PUMP, BDP-10A-300
9	781047	781047	1	HYDRO-GEAR PUMP BDP-10A-400
10	041707	041707	4	NT .437-14 HX G5 ZN
11	704742	704742	8	FW .453 X .812 X .060 ZN
12	781054	781054	2	ROSS/PARKER WHEEL MOTOR, MB-15
13	705186	705186	4	CS .437-14 X 1.375 HX G5 ZN
14	768341	768341	1	FILTER ELEMENT
15	768333	768333	1	FILTER HEAD
16	781575	N/A	1	-6STR -6 90°, PUSHLOC HOSE 4.75"
17	763946	N/A	3	90°, -6 O-RING/-6 JIC FITTING
18	778985	N/A	2	-6STR -6 90°, PUSHLOC HOSE, 13.00"
19	781591	N/A	1	-6STR -6 90°, PUSHLOC HOSE, 15.00"
20	779132	N/A	2	STR-6MORB/-6JIC FITTING
21	781559	N/A	1	45°, -8MORB/-8MSL FITTING
22	781542	N/A	1	90°, -8MORB/-8MSL FITTING
23	781658	N/A	1	STR-8-MORB/HEX PLUG
24	781526	N/A	4	90°, -10MORB/-8MSL FITTING
25	781500	N/A	1	RIGHT LOOP/RP-BM HYDRO TUBE
26	781492	N/A	1	RIGHT LOOP/LP-TM HYDRO TUBE
27	781484	N/A	1	LEFT LOOP/RP-BM HYDRO TUBE
28	781476	N/A	1	LEFT LOOP/LP-TM HYDRO TUBE
29	781534	N/A	2	STR-8MORB/-8MSL FITTING
30	781518	N/A	1	-6STR -6STR PUSHLOC HOSE, 9.00"
31	763953	N/A	1	-6 O-RING/-6JIC/6JIC T FITTING
	N/A	781469	1	MMZ HYDRAULIC KIT (INCLUDES 16-31)

### **NOTES:**

1. Hydraulic system capacity is 5 US quarts of 20W50 motor oil. Fill reservoir to within 1" of top of Item 3 (032771 Strainer). See "Hydraulic system" on page 10-24.

---

#### HYDRAULIC SYSTEM CHARGING PROCEDURE

1. Set handles in the neutral position.
2. Start engine at idle.
3. Let run for a minimum of 30 seconds.
4. Stroke handles to forward position.
5. If motors do not turn in 15 seconds return handles to neutral and repeat step 3 and 4 (one time).
6. If motors do not turn after second attempt, shut off the engine and check for oil at the pump.
7. Increase throttle to half speed and work handles through forward and reverse position until the motor operates smoothly throughout the entire speed range.

**Note:**

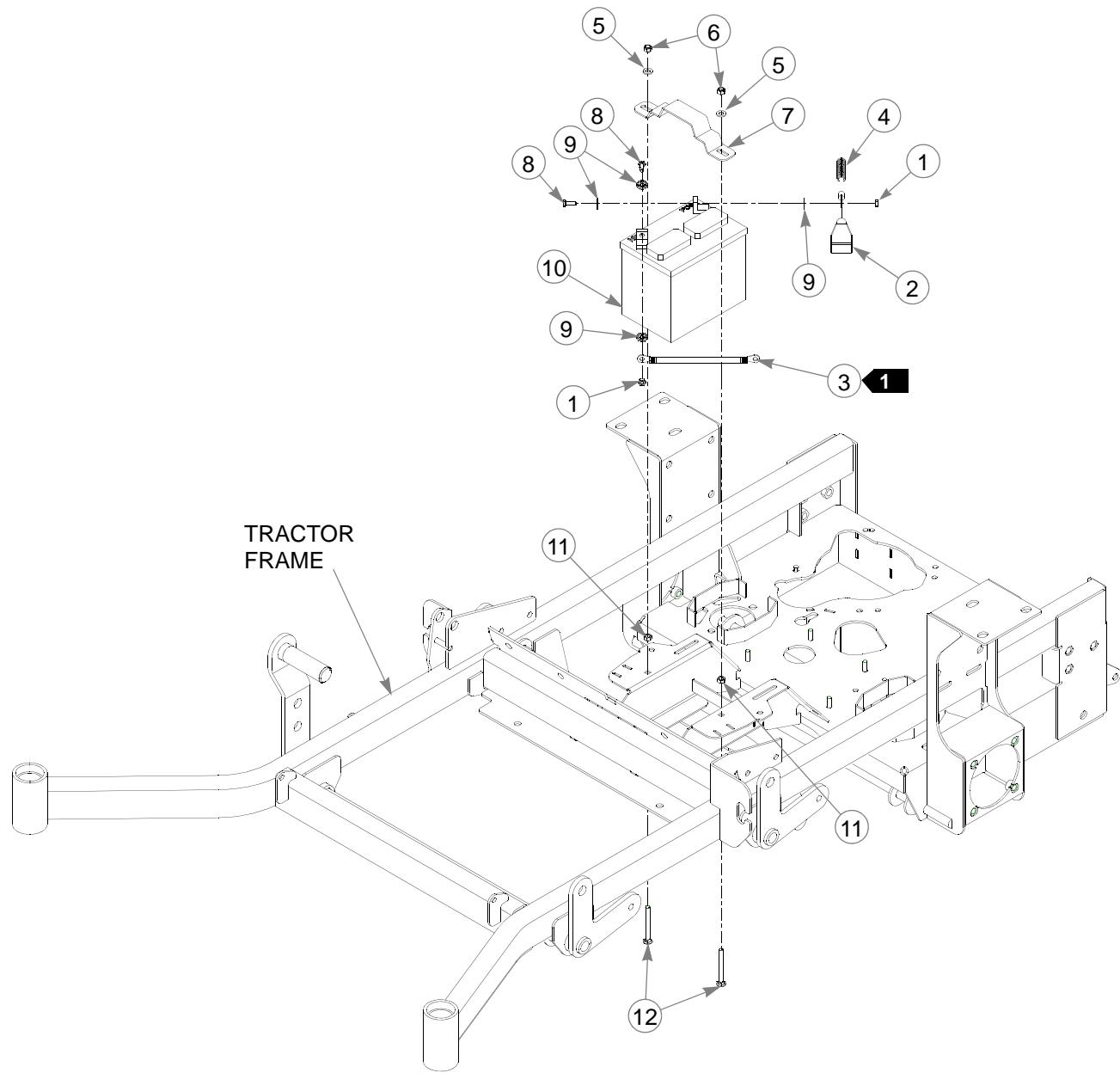
Seal Kit for hydraulic pump; 727756 (BDP10 Overhaul Seal Kit)

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## Chapter 4 Contents

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## **Battery Installation**



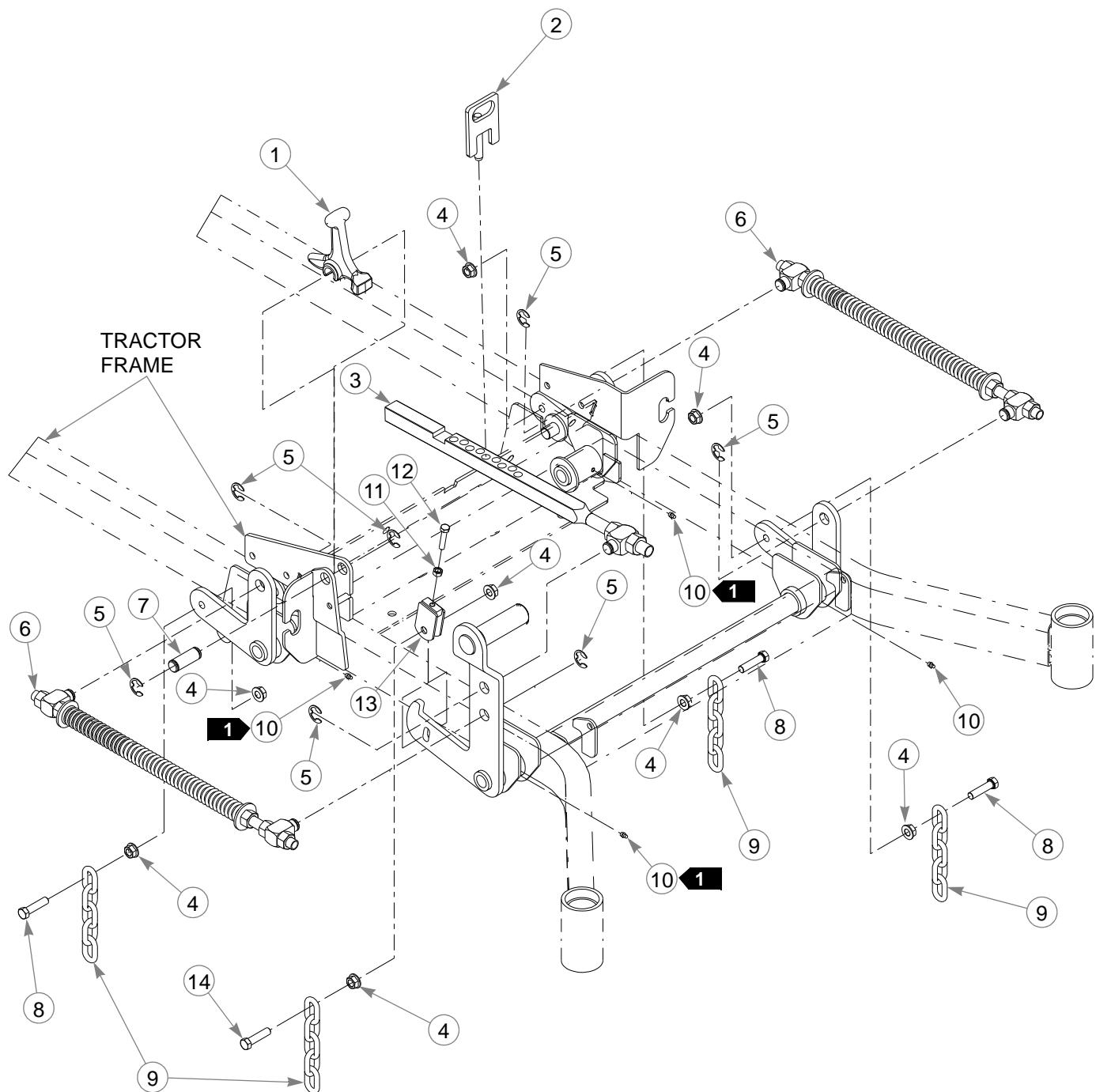
## **Battery Installation**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	024927	024927	2	NT .250-20 HX GR.5 ZN
2	771428	771428	1	RED BATTERY CABLE BOOT
3	796219	796219	1	36" NEGATIVE BATTERY CABLE
4	744276	744276	1	POSITIVE BATTERY CABLE
5	768523	768523	3	FW .343 X .687 X .051/.080 HD ZN/YL
6	058776	058776	2	NT .312-18 HX NL ZN
7	348417	348417	1	BATTERY CLAMP STRAP
8	055939	055939	2	CS .250-20 X .750 HX G5 ZN
9	029868	029868	4	LW .250 INT-EXT TOOTH ZN
10	740696	740696	1	BATTERY
11	034272	034272	2	NT .312-18 HX G5 ZN
12	779850	779850	2	CB .312-18 X 3.00 FUL ZN

### **NOTES:**

1. When performing service on mower, disconnect battery ground cable and do not reconnect to battery until engine is ready to be started. See Owners Manual.
2. Battery is not installed in export models.

## **Deck Lift Assembly**



## ***Deck Lift Assembly***

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ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	348318	348318	1	STOP HANDLE
2	600437	600437	1	DECK HEIGHT 1/2" PIN W/A
3	783001	783001	1	DECK LIFT INDICATOR SUBASSEMBLY
4	704643	704643	8	NT .437-14 HX FLG ZN
5	781294	781294	7	CLIP E, 1.00 X .625 X .050
6	782995	782995	2	DECK LIFT SPRING SUBASSEMBLY
7	781229	781229	1	CE .750 X 2.25 X 1.75 HEADLESS
8	055749	055749	3	CS .437-14 X 1.750 HX G5 ZN
9	348391	018846	4	DECK LIFT CHAIN
10	015495	015495	4	STRAIGHT GREASE FITTING
11	034272	034272	1	NT .312-18 HX G5 ZN
12	756270	756270	1	CS .312-18 X 1.50 FUL THR GR5 ZN
13	348458	348458	1	DECK LEVELER YOKE
14	781831	781831	1	CS .437-14 X 1.750 FUL THD G5 ZN

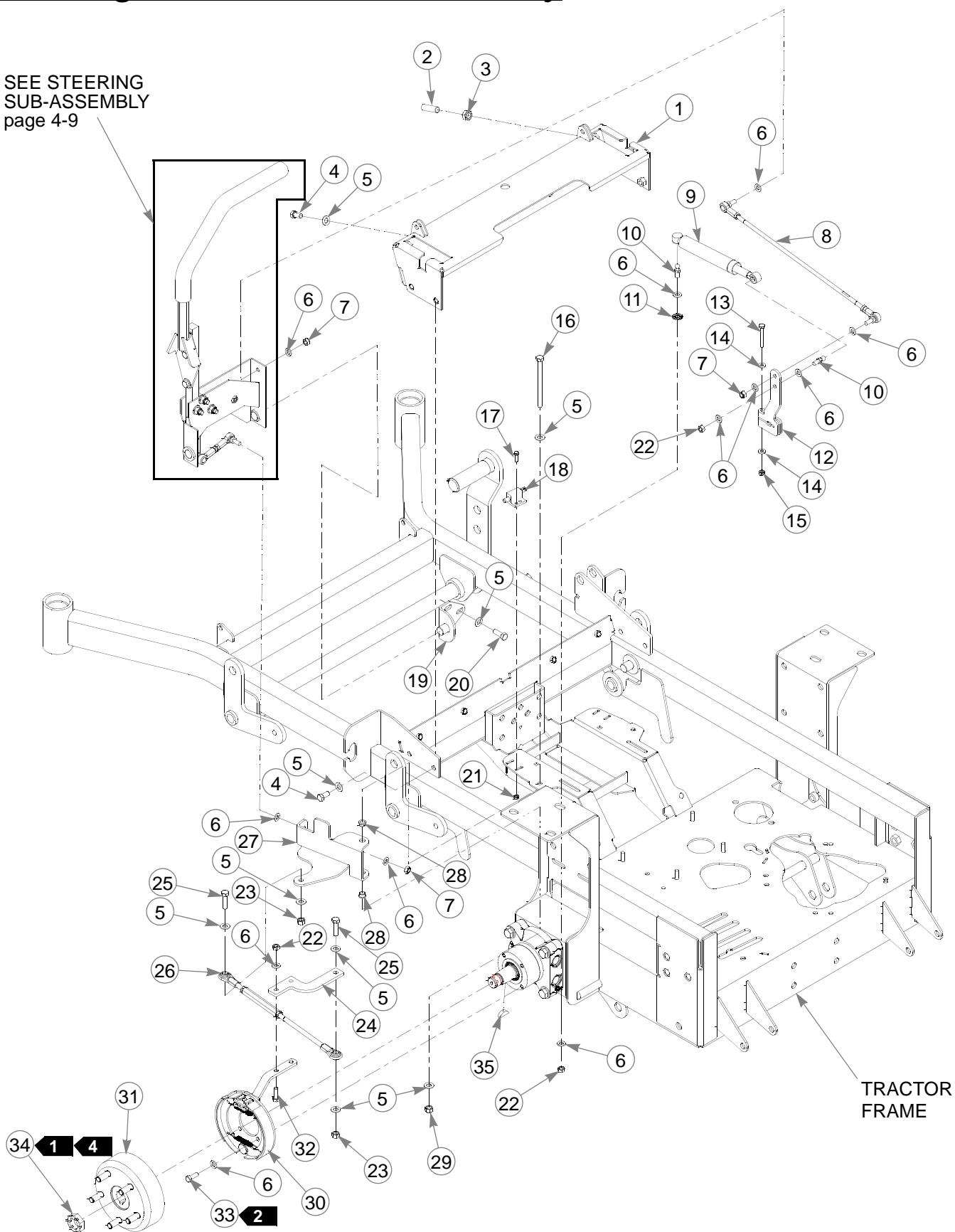
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### **NOTES:**

1. Apply grease to zerks (see owner's manual).

## Steering and Park Brake Assembly

SEE STEERING  
SUB-ASSEMBLY  
page 4-9



## Steering and Park Brake Assembly

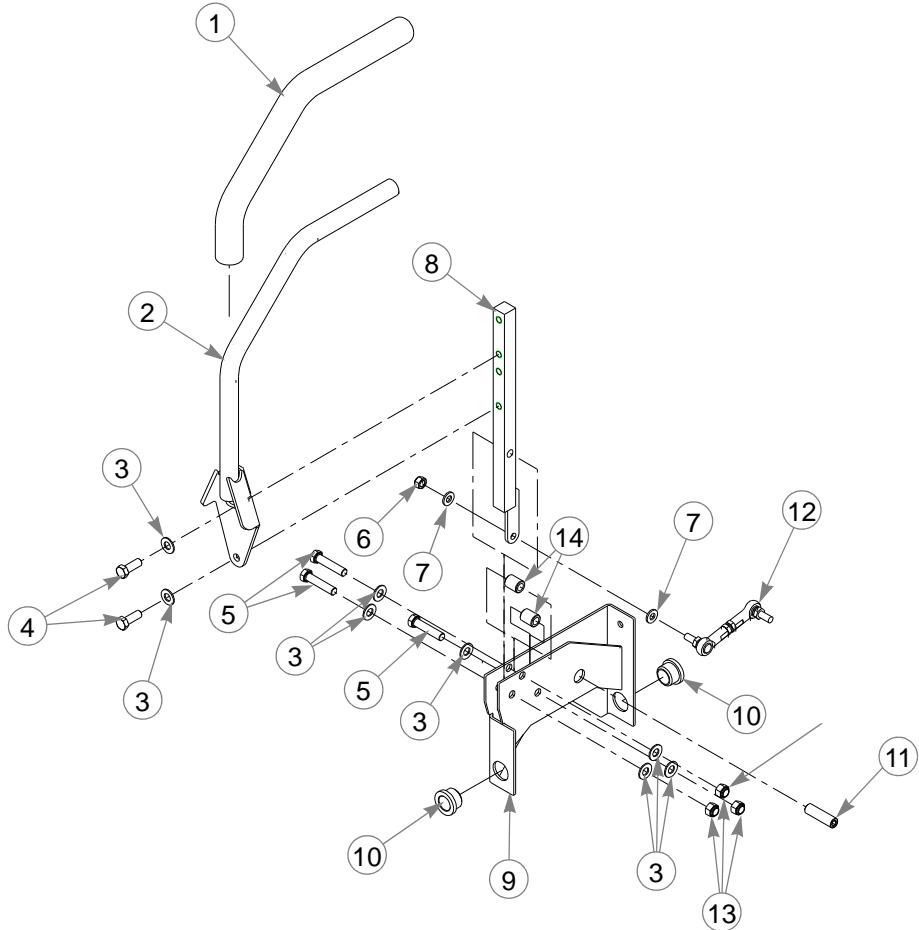
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	348987	348987	1	STEERING CONTROL PANEL
2	781716	781716	2	SS .500-13 X 1.75 SH ZN
3	053199	053199	2	NT .500-13 HX JAM ZN
4	055822	055822	8	CS .375-16 X .750 HX G5 ZN
5	767954	767954	26	FW .406 X .812 X .060 SAE HD ZN
6	768523	768523	30	FW .343X .687 X .051/.080 HD ZN/YL
7	023655	023655	6	NT .312-24 HXZY NL
8	781286	781286	2	PUMP ROD ADJUSTER ASSEMBLY
9	600221	600221	2	CENTERING DAMPER
10	781922	781922	4	DAMPER BALL STUD
11	029876	029876	2	LW .312 INT-EXT TOOTH Z
12	367557	367557	2	PUMP ARM
13	704163	704163	2	CS .250-20 X 2.00 HX G5 ZN
14	768515	768515	4	FW .281 X .625 X .051/.080 HD ZN/YL
15	068551	068551	2	NT .250-20 HX NL ZN
16	782979	782979	2	CS .375-16 X 4.75 HX G5 ZN
17	063198	063198	4	CS 10-24 X .750 HXFLK ZN
18	781211	781211	2	PUSH BUTTON SWITCH
19	348797	348797	2	ADJUSTABLE PIVOT
20	036244	036244	6	CS .375-16 X 1.000 HX G5 ZN
21	059832	059832	4	NT #10-24 HX NL ZN
22	034272	034272	8	NT .312-18 HX G5 ZN
23	054502	054502	4	NT .375-16 HX GRD 5 ZN
24	101766	101766	2	BRAKE ARM EXTENSION
25	350272	350272	2	BRAKE ARM EXTENSION
26	005116	005116	4	CS .375-16 X 1.375 HX G5 ZN
27	350397	350397	2	BRAKE LINK TURNBUCKLE
28	350330	350330	1	L.S. BRAKE PIVOT ARM
29	350264	350264	1	R.S. BRAKE PIVOT ARM
30	765339	765339	4	BUSHING
31	086660	086660	2	NT .375-16 HX LK NY
32	600925	600925	1	BRAKE ASSY LEFT WHEEL
33	600924	600924	1	BRAKE ASSY RIGHT WHEEL
34	781112	781112	1	BRAKE ASSY LH (S/N PRIOR TO 07120009)
35	781351	781351	1	BRAKE ASSY RH (S/N PRIOR TO 07120009)
36	600923	600923	2	WHEEL HUB
37	781765	781765	2	BRAKE DRUM-HUB ASSEMBLY
38	036236	036236	4	CS .312-18 X 1.000 HX G5 ZN
39	064014	064014	8	CS .312-18X .875 HX G5
40	601289	N/A	2	HG MOTOR NUT
41	065516	N/A	2	ROSS CASTLE NUT
42	601290	N/A	2	HG MOTOR KEY
43	064337	N/A	2	ROSS KEY

### NOTES:

1. For units with serial number 07120009 and higher: Torque to 180-210 ft.-lbs. Included with wheel motor.

- 
2. For units with serial number 07120009 and higher: Torque to 17 ft.-lbs.
  3. For units with serial number 07120009 and higher: 600925 used on left wheel. 600924 used on right wheel.
  4. For units with serial numbers prior to 07120009: Torque to 350-375 ft.-lbs. Included with wheel motor.
  5. For units with serial numbers prior to 07120009: Torque brake assembly mounting bolts to 100 ft.-lbs.
  6. For units with serial numbers prior to 07120009: 781112 used on left wheel. 781351 used on right wheel.
  7. Used on mowers with serial numbers prior to 07120009.
  8. Used on mowers with serial numbers 07120009 and higher.

## Steering Sub-Assembly

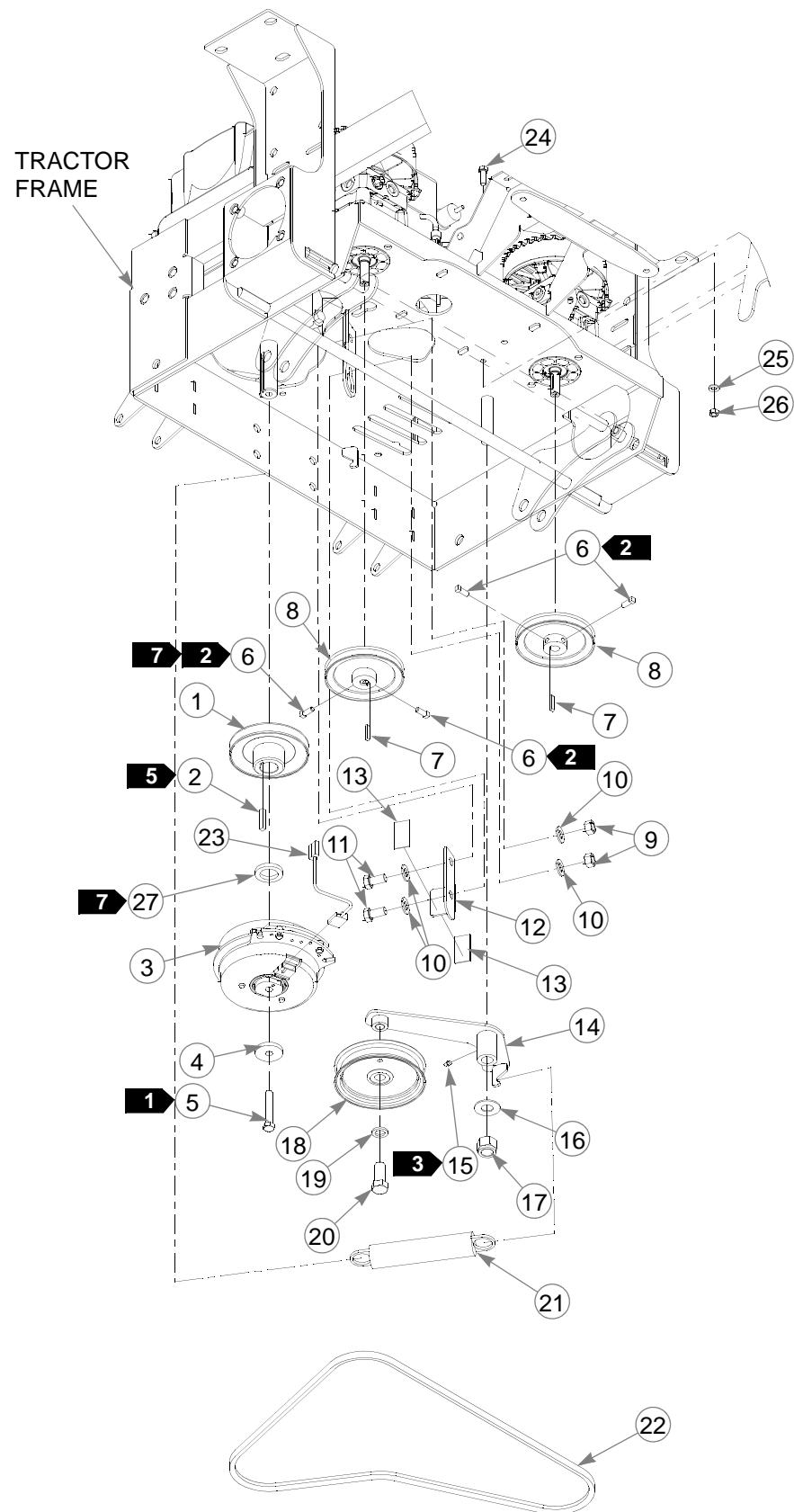


ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	781260	N/A	2	STEERING BAR GRIP
2	348755	348755	2	STEERING BAR
3	767954	767954	16	FW .406 X .812 X .060 SAE HD ZN
4	036244	036244	4	CS .375-16 X 1.000 HX G5 ZN
5	705178	705178	6	CS .375-16 X 1.750 HX G5 ZN
6	023655	023655	2	NT .312-24 HXZY NL
7	768523	768523	4	FW .343X .687 X .051/.080 HD ZN/YL
8	348946	348946	2	STEERING ARM MOUNT
9	348888	348888	1	STEERLEVER SUPPORT LH (SHOWN)
	348714	348714	1	STEERLEVER SUPPORT RH
10	781153	781153	4	BUSHING
11	781716	781716	2	SS .500-13 X 1.75 SH ZN
12	781583	781583	2	BRAKE ROD ASSEMBLY
13	086660	086660	6	NT .375-16 HX LK NY
14	348862	348862	4	STEERLEVER BUSHING

### NOTES:

1. Includes Item 1 (781260 Steering Bar Grip).

## **Pump Belt and Pulleys Installation**



## ***Pump Belt and Pulleys Installation***

ITEM NO.ITE M NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	779876	779876	1	ENGINE SC SINGLE PULLEY
2	212076	212076	1	KEY 1/4 SQ X 1.50 LONG
<b>5</b> 3	601311	601311	1	WARNER CLUTCH
4	783829	783829	1	FW .460 X 1.750 X .250 ZNYC
5	785659	785659	1	CS .437-20 X 2.50 HX G5 ZNYC
6	083196	083196	4	SS .312-18 X .750 SQ-HD ZN
7	768127	768127	2	KEY 5MM X 30MM RADIUS ENDS
8	768705	768705	2	PULLEY
<b>6</b> 9	325308	325308	2	PULLEY & FAN
10	008193	008193	2	NT .500-13 HX G5 ZNYC
11	767962	767962	4	FW .531 X 1.063 X .090 SAE HD ZN
12	016527	016527	2	CS .500-13 X 1.00 HX G5 ZNYC
13	366765	366765	1	CLUTCH ANCHOR ANGLE
14	784918	784918	2	RUBBER BUMPER
15	349761	349761	1	PUMP IDLER ARM
16	015495	015495	1	STRAIGHT GREASE FITTING
17	025296	025296	1	FW .760 X 1.625 X .08 ZN
18	061101	061101	1	NT .750-10 HX NL ZN
19	781856	781856	1	IDLER PULLEY
20	028118	028118	1	FW .62 X 1.00 X.134 ZN
21	781872	781872	1	CS .625-11X1.25 HX G5 ZN
22	601016	601016	1	IDLER SPRING
23	781443	781443	1	A-SEC PUMP IDLER BELT
24	791251	791251	1	HARNESS, CLUTCH PIGTAIL (DIODE)
25	036236	036236	1	CS .312-18X1.000 HX G5 ZNYC
26	768523	768523	1	FW .343 X .687 X .051/.080 HD ZNYC
27	034272	034272	1	NT .312-18 HX G5 ZNYC
	797654	797654	1	CLUTCH SPACER MNZ

### **NOTES:**

1. Torque to 45-48 ft-lbs.
2. Torque to 12-15 ft-lbs.
3. Apply grease at zerk (see owner's manual).
4. Included with Honda 24 HP engine (785014).
5. For mowers with serial numbers prior to 07060569 order clutch 787366.
6. For mowers with serial numbers prior to 07120009 use 325308 (pulley with fan).
7. Used on mowers with Kawasaki 29 HP engines only.

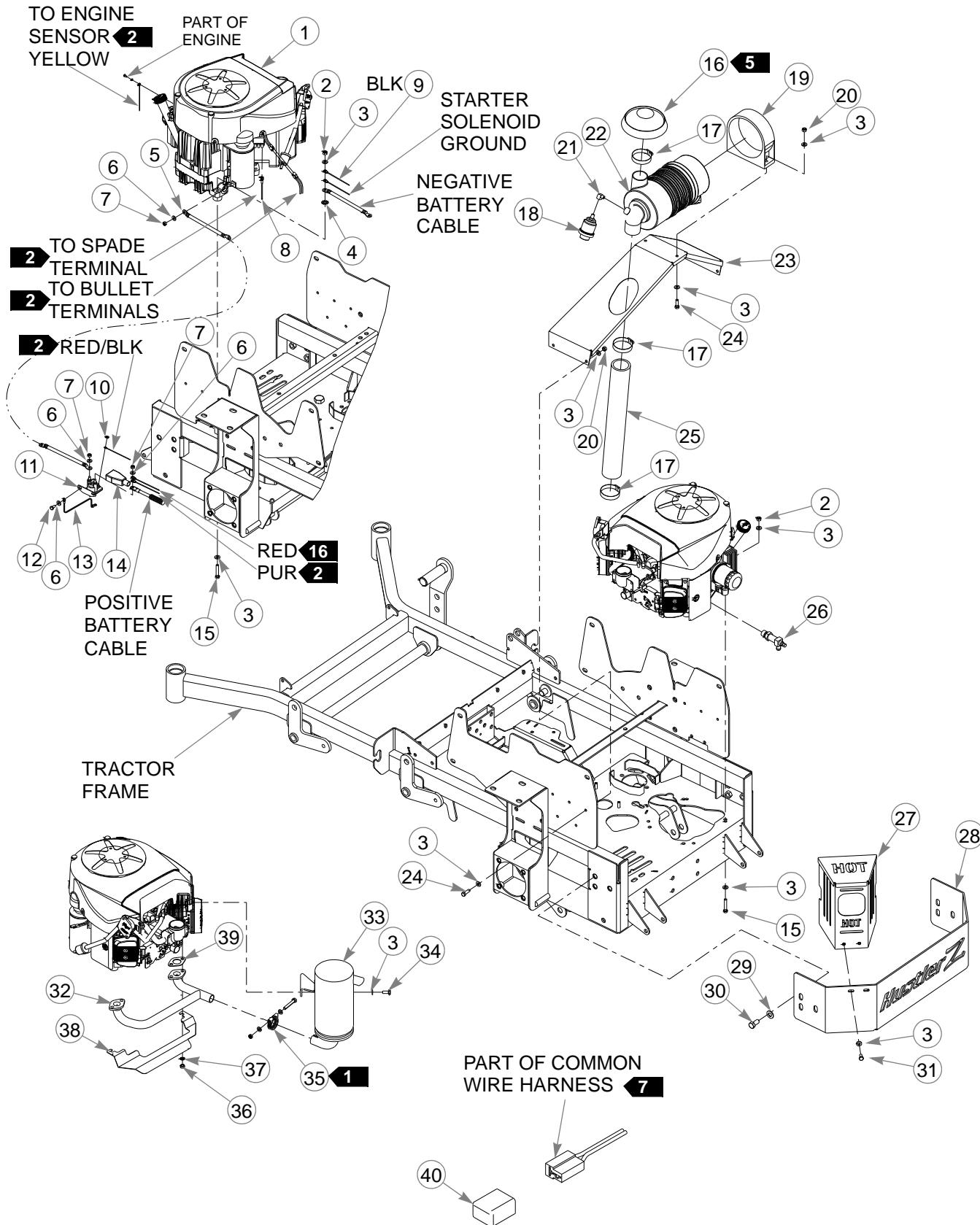


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# Kawasaki Engine Installation (Remote Air Cleaner)



## **Kawasaki Engine Installation (Remote Air Cleaner)**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	777656	777656	1	KAWASAKI 23 HP ENGINE
	782318	782318	1	KAWASAKI 25 HP ENGINE (FH721V, 3600 RPM)
2	058776	058776	4	NT .312-18 HXZY NL
3	768523	768523	24	FW .343 X .687 X .051/.080 HD ZN/YL
4	029876	029876	1	LW .312 INT-EXT TOOTH ZN
5	792762	792762	1	BATTERY CABLE
6	768515	768515	5	FW .281 X .625 X .051/.080 HD ZN/YL
7	024927	024927	3	NT .250-20 HX GR.5 ZN
8	799312	799312	1	WIRE HARNESS ADAPTER
9	799320	799320	1	COMMON WIRE HARNESS
10	044255	044255	1	NT #10-32 HX ZN
11	030817	030817	1	STARTER SOLENOID
12	055947	055947	2	CS .250-20 X .500 HX G5 ZN
13	792192	792192	1	STARTER RELAY GROUND WIRE
14	771428	771428	1	RED BATTERY CABLE BOOT
15	050161	050161	4	CS .312-18 X 1.75 HX G5
16	786673	786673	1	DONALDSON AIR CLEANER CAP
17	057661	057661	3	HOSE CLAMP
18	788943	788943	1	AIR FILTER INDICATOR
19	785741	785741	1	MOUNTING BAND
20	034272	034272	6	NT .312-18 HX G5 ZN
21	601216	601216	1	FITTING 90° STREET ELBOW
22	782763	782763	1	AIR CLEANER
23	366443	366443	1	REMOTE AIR CLEAN MOUNT BRACKET
24	036236	036236	6	CS .312-18 X 1.00 HX G5 ZNYC
25	786038	786038	1	REMOTE AIR FILTER HOSE
26	796524	796524	1	OIL DRAIN M20 X 2.5 VALVE
27	350371	350371	1	MUFFLER GUARD
28	349704	349704	1	ENGINE CAGE MOUNT PLATE
29	767962	767962	4	FW .531 X 1.063 X .090 SAE HD ZN
30	016527	016527	4	CS .500-13 X 1.00 HX G5 ZN
31	064006	064006	2	CS .312-18 X .625 HX G5 ZN
32	781732	781732	1	MUFFLER MANIFOLD
33	781724	781724	1	MUFFLER
34	720177	720177	2	CS M 8-1.25 X 20 10.9 HXFL ZN
35	782649	782649	1	KAW (23) EXHAUST PIPE CLAMP
36	782664	782664	4	NT M8-1.25 HX STAINLESS STEEL
37	017004	017004	4	LW .312 MED SPRING ZN
38	360693	360693	1	HEAT SHIELD
39	780841	780841	2	KAW (23) MUFFLER GASKET
40	789131	789131	1	HUSTLER Z FAN CONNECTOR CAP

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**NOTES:**

1. Includes mounting hardware.
2. Part of Item 8 (799312 Wire Harness Adapter).
3. Engine oil capacity: Refer to engine owner's manual.
4. Engine RPM to be set at  $3600 \pm 50$ .
5. Includes one (1) of Item 17 (057661 Hose Clamp).
6. When installing lower hose clamp on air cleaner hose, install as low as possible (against carburetor inlet).
7. This connector used for optional electrical equipment.
8. Air filter service parts:

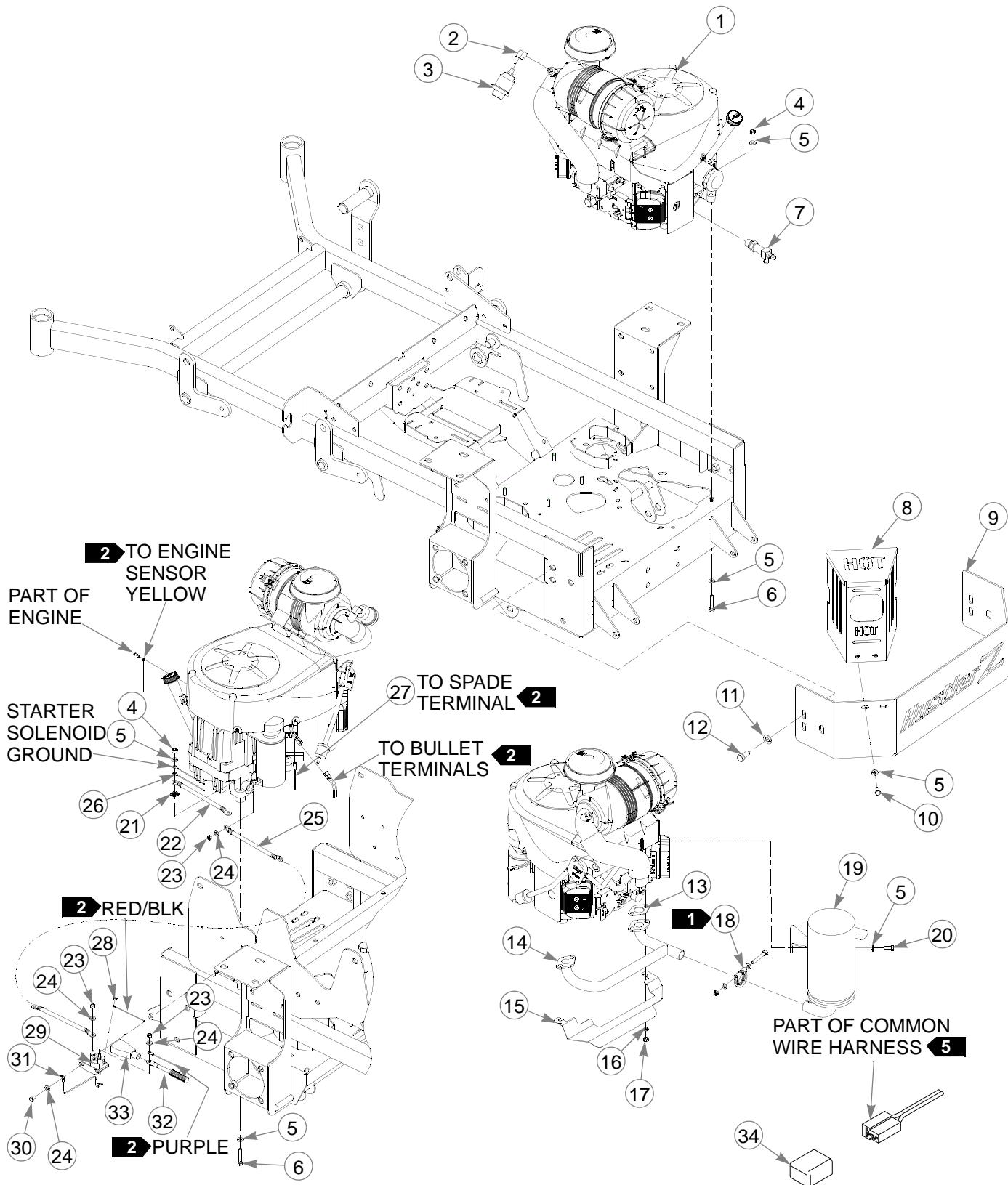
785261	MAIN AIR FILTER ELEMENT
763318	VACUATOR VALVE

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# Kawasaki 25 HP Engine Installation (With HD Air Cleaner)



# **Kawasaki Engine Installation (With HD Air Cleaner)**

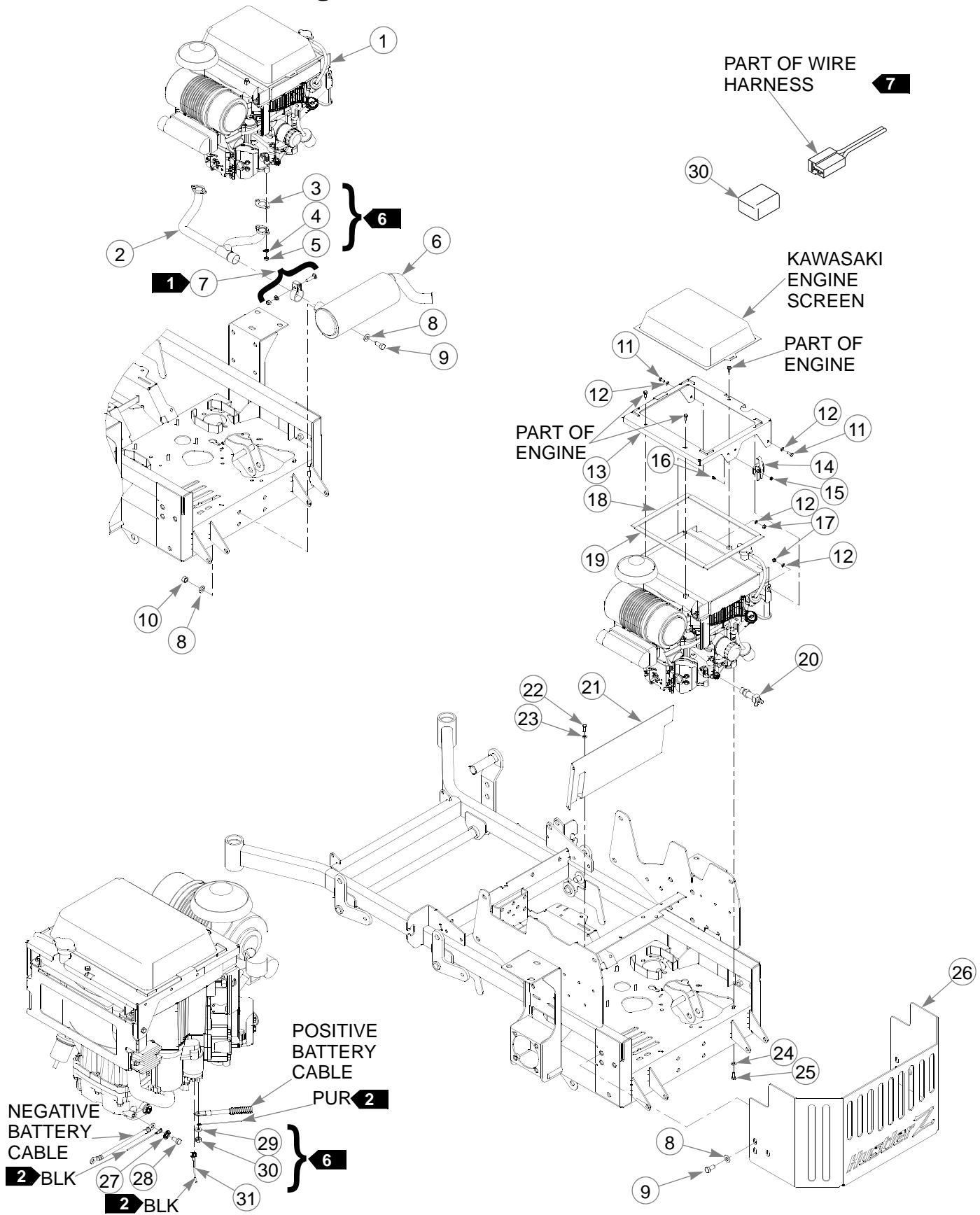
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	601119	601119	1	KAWASAKI 25 HP ENGINE W/ H/D AIR
2	601257	601257	1	FITTING, 90 1/8NPT BRASS
3	788943	788943	1	AIR FILTER INDICATOR
4	058776	058776	4	NT .312-18 HXZY NL
5	768523	768523	12	FW .343 X .687 X .051/.080 HD ZN/YL
6	050161	050161	4	CS .312-18 X 1.75 HX G5
7	796524	796524	1	OIL DRAIN M20 X 2.5 VALVE
8	350371	350371	1	MUFFLER GUARD
9	349704 <sup>c</sup>	349704	1	ENGINE CAGE MOUNT PLATE
10	064006	064006	2	CS .312-18 X .625 HX G5 ZN
11	767962	767962	4	FW .531 X 1.063 X .090 SAE HD ZN
12	016527	016527	4	CS .500-13 X 1.00 HX G5 ZN
13	780841	780841	2	KAW (23) MUFFLER GASKET
14	781732	781732	1	MUFFLER MANIFOLD
15	360693	360693	1	HEAT SHIELD
16	017004	N/A	4	LW .312 MED SPRING ZN
17	782664	N/A	4	NT M8-1.25 HX STAINLESS STEEL
18	782649	782649	1	EXHAUST PIPE CLAMP
19	781724	781724	1	MUFFLER
20	720177	720177	2	CS M 8-1.25 X 20 10.9 HXFLZ
21	029876	029876	1	LW .312 INT-EXT TOOTH ZN
22	796219	N/A	1	36" NEGATIVE BATTERY CABLE
23	024927	024927	3	NT .250-20 HX GR.5 ZN
24	768515	768515	5	FW .281 X .625 X .051/.080 HD ZN/YL
25	792762	792762	1	BATTERY CABLE
26	799320	799320	1	COMMON WIRE HARNESS
27	799312	799312	1	WIRE HARNESS ADAPTER
28	044255	044255	1	NT #10-32 HX ZN
29	030817	030817	1	STARTER SOLENOID
30	055947	055947	2	CS .250-20 X .500 HX G5 ZN
31	792192	792192	1	STARTER RELAY GROUND WIRE
32	744276	N/A	1	POSITIVE BATTERY CABLE
33	771428	771428	1	RED BATTERY CABLE BOOT
34	789131	789131	1	HUSTLER Z FAN CONNECTOR CAP

## **NOTES:**

1. Includes mounting hardware.
2. Part of Item 27 (799312 Wire Harness Adapter).
3. Engine oil capacity: Refer to engine owner's manual.
4. Engine RPM to be set at 3600± 50.
5. This connector used for optional electrical equipment.
6. Air filter service parts:

785261	MAIN AIR FILTER ELEMENT
785279	SAFETY AIR FILTER ELEMENT
763318	VACUATOR VALVE

# Kawasaki 26 HP Engine Installation



# **Kawasaki 26 HP Engine Installation**

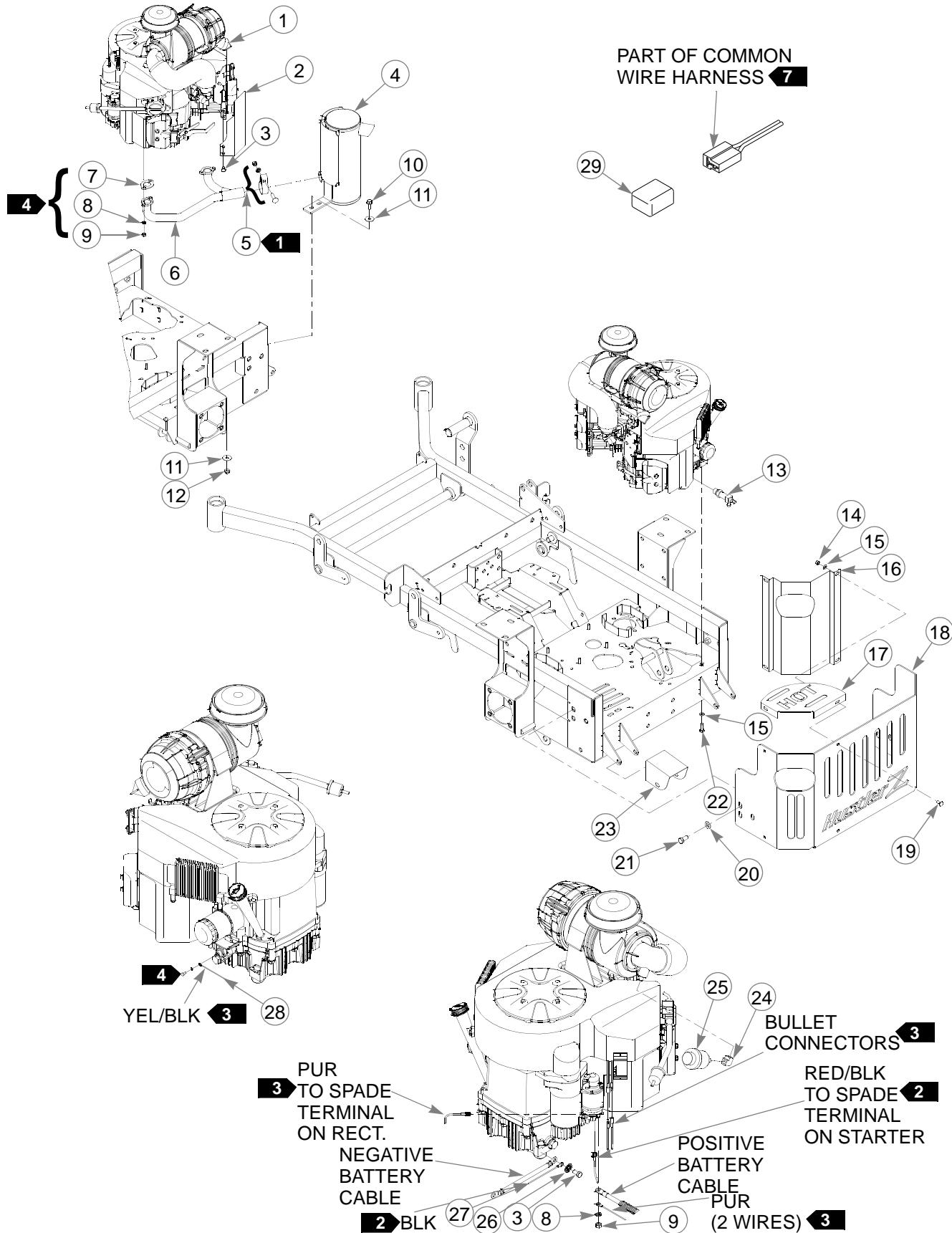
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	795617	795617	1	KAWASAKI FD731V ENGINE
2	796748	796748	1	KAWASAKI 26HP EXHAUST MANIFOLD
3	780841	780841	2	KAW (23) MUFFLER GASKET
4	017004	017004	4	LW .312 MED SPRING ZN
5	782664	782664	4	NT M8-1.25 HX STAINLESS STEEL
6	796755	796755	1	KAWASAKI 26HP LC MUFFLER
7	785378	785378	1	1.50" MUFFLER CLAMP
8	767962	767962	14	FW .531 X 1.063 X .090 SAE HD ZN
9	016527	016527	10	CS .500-13 X 1.00 HX G5 ZN
10	008193	008193	4	NT .500-13 HX G5 ZNYC
11	064329	064329	2	CS .250-20 X .625 HX G5
12	073866	073866	4	FW .281 X .500 X .06 ZNYC
13	104133	104133	1	SCREEN SUPPORT
14	010470	010470	1	OVER CENTER LATCH ZINC
15	035626	035626	2	NT #10-24 HX ZN
16	030437	030437	2	MS #10-24 X .375 RD SL
17	024927	024927	3	NT .250-20 HX GR. 5 ZNYC
18	033035	033035	2	.12 X .75 WEATHERSTRIP (11.0" LONG)
19	033035	033035	2	.12 X .75 WEATHERSTRIP (13.375" LONG)
20	796524	796524	1	M20 X 2.5 OIL DRAIN VALVE
21	109566	109566	1	ENGINE AIR BAFFLE
22	055939	055939	3	CS .250-20 X .750 HX G5
23	768515	768515	3	FW .281 X .625 X .051/.080 HD ZN/YL
24	768523	768523	4	FW .343 X .687 X .051/.080 HD ZN/YL
25	028035	028035	4	CS M 8-1.25 X 20 HX G8.8
26	109717	109717	1	ENGINE GUARD
27	029876	029876	1	LW .312 INT-EXT TOOTH ZN
28	720516	720516	1	CS M8 X1.25 X 16 G10.9 HX
29	017004	N/A	1	LW .312 MED SPRING ZN
30	077545	N/A	1	NT M8-1.25-10-HX ZNYC
31	799338	799338	1	26HP KAWASAKI WIRE HARNESS

## **NOTES:**

1. Includes mounting hardware.
2. Part of Item 31 (799338 Tractor Wire Harness).
3. Engine oil capacity: Refer to engine owner's manual.
4. Engine coolant capacity, 2.9 US quarts.
5. Engine RPM to be set at 3600±50.
6. Supplied with engine.
7. This connector used for optional electrical equipment.
8. Air filter service parts (see engine manual other engine service parts):

785261      MAIN AIR FILTER ELEMENT  
785279      SAFETY AIR FILTER ELEMENT

# Kawasaki 29 HP Engine Installation (With HD Air Cleaner)



## **Kawasaki 29 HP Engine Installation (With HD Air Cleaner)**

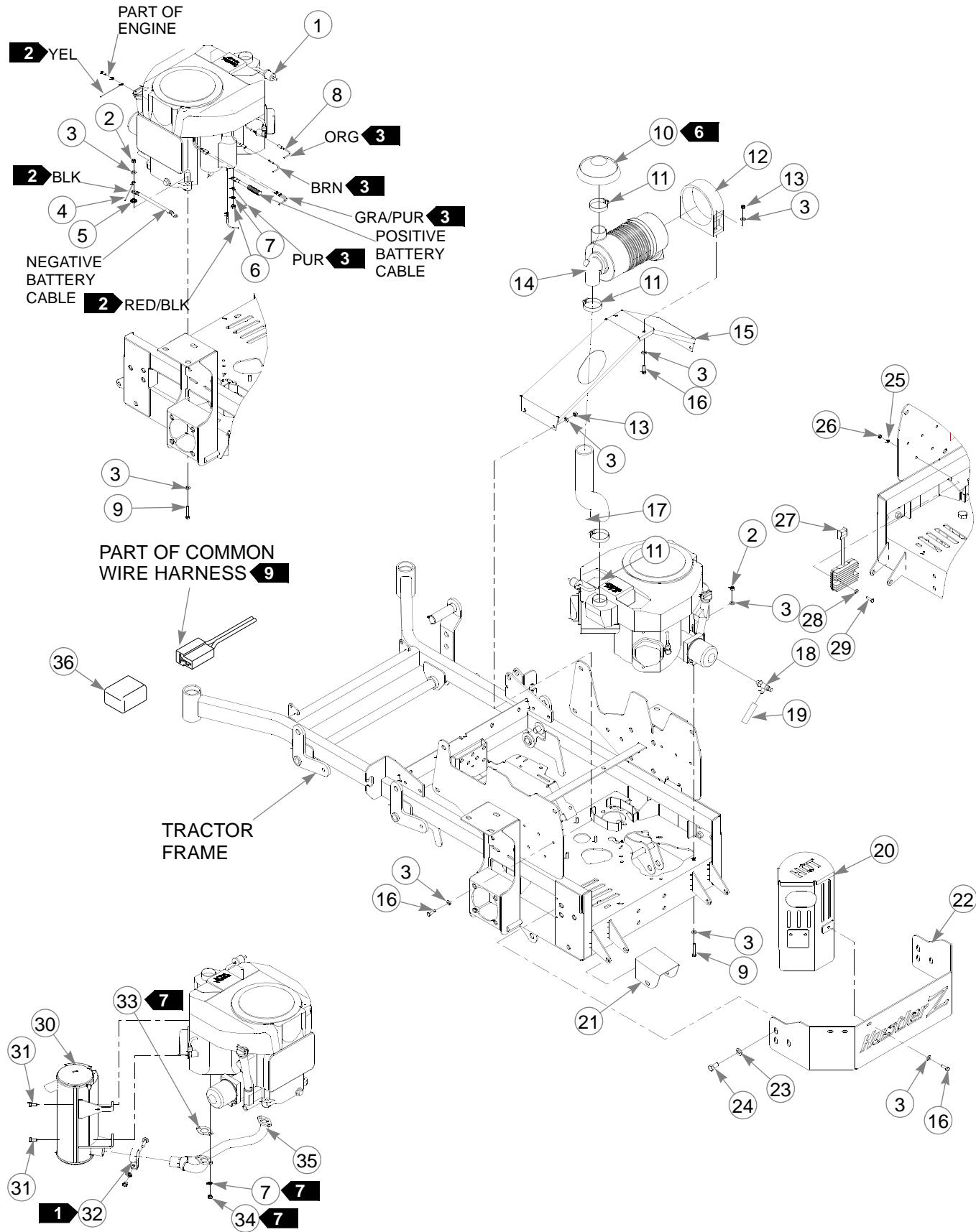
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	601548	N/A	1	KAWASAKI 29 HP ENGINE
2	109743	109743	1	CABLES HEAT SHIELD
3	720516	720516	3	CS M8 X1.25 X 16 G10.9 HX
4	788018	788018	1	MUFFLER
5	785378	785378	1	1.50" MUFFLER CLAMP
6	601550	601550	1	MANIFOLD, 29/31 KAW
7	780841	780841	2	KAW MUFFLER GASKET
8	017004	017004		LW .312 MED SPRING ZN
9	782664	782664		NT M8-1.25 HX STAINLESS STEEL
10	029751	029751	2	CS .375-16 X 1.00 HXFLK ZNYC
11	705137	705137	4	FW .391 X 1.250 X .060 ZNYC
12	016899	016899	2	NT .375-16 HXFLK ZNYC
13	796524	796524	1	M20X2.5 OIL DRAIN VALVE
14	034272	034272	4	NT .312-18 HX G5 ZN
15	768523	768523	12	FW .343 X .687 X .051/.080 HD ZN/YL
16	109749	109749	1	EXHAUST HEAT SHIELD
17	338475	338475	1	MMZ TALL HEAT SHIELD
18	337394	337394	1	HUSTLER Z ENGINE GUARD
19	016253	016253	4	CB .312-18X .750 FUL ZN
20	767962	767962	6	FW .531 X 1.063 X .090 SAE HD ZN
21	016527	016527	6	CS .500-13 X 1.00 HX G5 ZN
22	036244	036244	4	CS .375-16 X 1.00 HX G5 ZNYC
23	377994	377994	1	MMZ ROLLER HEAT SHIELD
24	601257	601257	1	FITTING, 90 1/8NPT BRASS
25	788943	788943	1	AIR FILTER INDICATOR
26	029876	029876	1	LW .312 INT-EXT TOOTH ZN
27	799320	799320	1	XR7 COMMON WIRE HARNESS
28	601561	601561	1	WIRING HARNESS, KAWASAKI 29,31
29	789131	789131	1	HUSTLER Z FAN CONNECTION CAP

### **NOTES:**

1. Includes mounting hardware.
2. Wires from Item 27—XR7 Common Wire Harness (799320).
3. Wires from Item 28—Kawasaki 29,31 Wiring Harness (601561).
4. Supplied with engine.
5. Engine oil capacity: Refer to engine owner's manual.
6. Engine RPM to be set at  $3600 \pm 50$
7. This connector used for optional electrical equipment.
8. Air filter service parts:

601652      OUTER FILTER ELEMENT  
601653      INNER FILTER ELEMENT

# Honda Engine Installation



# **Honda Engine Installation**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	785014	785014	1	HONDA 24HP ENGINE
2	058776	058776	4	NT .312-18 HXZY NL
3	768523	768523	23	FW .343 X .687 X .051/.080 HD ZN/YL
4	799320	799320	1	COMMON WIRE HARNESS
5	029876	029876	1	LW .312 INT-EXT TOOTH ZN
6	077545	N/A	1	NT M8-1.25 X 10 HX ZNYC
7	017004	N/A	5	LW .312 MED SPRING ZN
8	799304	799304	1	WIRE HARNESS ADAPTER
9	050161	050161	4	CS .312-18 X 1.75 HX G5
10	786673	786673	1	DONALDSON AIR CLEANER CAP
11	057661	057661		HOSE CLAMP
12	785741	785741	1	MOUNTING BAND
13	034272	034272	6	NT .312-18 HX G5 ZN
14	782763	782763	1	AIR CLEANER
15	366443	366443	1	REMOTE AIR CLEANER MOUNT BRACKET
16	036236	036236	9	CS .312-18 X 1. HX G5 ZNYC
17	785675	785675	1	REMOTE AIR FILTER HOSE
18	787689	787689	1	HONDA OIL DRAIN VALVE
19	787713	787713	1	0.50" LOW PRESSURE HOSE, 3.00" LONG
20	382168	382168	1	MUFFLER GUARD
21	377994	377994	1	MMZ ROLLER HEAT SHIELD
22	365742	365742	1	ENGINE CAGE MOUNT PLATE
23	767962	767962	4	FW .531 X 1.063 X .090 SAE HD ZN
24	016527	016527	4	CS .500-13 X 1.00 HX G5 ZNYC
25	017038	017038	2	LW .250 MED SPRING ZNYC
26	024927	024927	2	NT .250-20 HX GR.5 ZNYC
27	785477	N/A	1	HONDA 20 AMP RECTIFIER
28	768515	768515	2	FW .281 X .625 X .051/.080HD ZNYC
29	056077	056077	2	CS .250-20 X 1.00 HX G5 ZNYC
30	784843	784843	1	MUFFLER
31	720177	720177	2	CS M 8-1.25 X 20 10.9 HXFL ZN
32	785378	785378	1	1.50" MUFFLER CLAMP
33	785543	N/A	2	HONDA (20) MUFFLER GASKET
34	782664	N/A	4	NT M8-1.25 HX STAINLESS STEEL
35	784959	784959	1	MUFFLER MANIFOLD
36	789131	789131	1	HUSTLER Z FAN CONNECTION CAP

## **NOTES:**

1. Includes mounting hardware.
2. Part of Item 4 (799320 Tractor Common Wire Harness).
3. Part of Item 8 (799304 Wire Harness Adapter).
4. Engine oil capacity: Refer to engine owner's manual.
5. Engine RPM to be set at  $3600 \pm 50$ .
6. Includes one (1) of Item 11 (057661 Hose Clamp).

- 
- 7. Supplied with engine.
  - 8. When installing lower hose clamp on air cleaner hose, install as low as possible (against carburetor inlet).
  - 9. This connector used for optional electrical equipment.
  - 10. Air filter service parts:

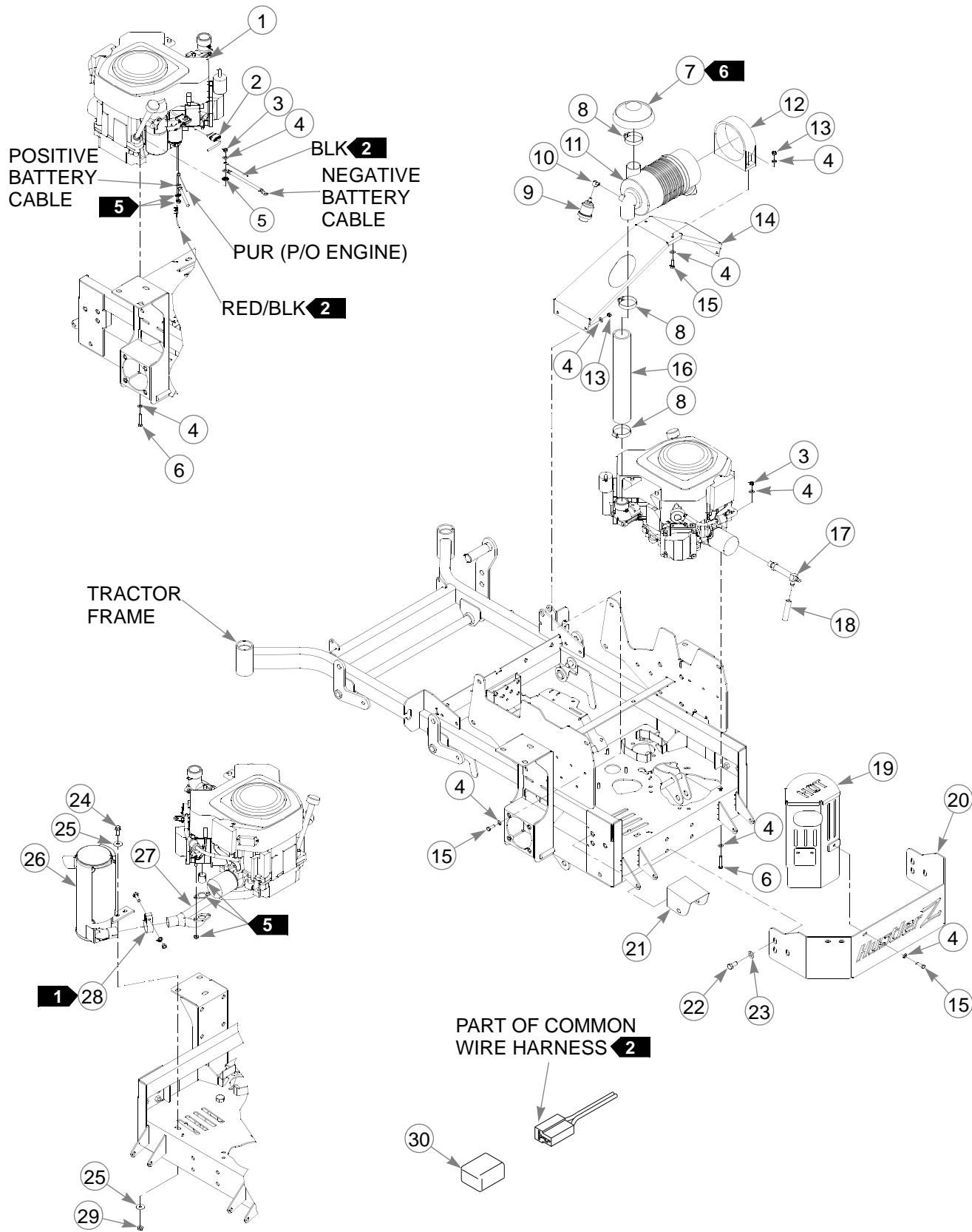
785261	MAIN AIR FILTER ELEMENT
763318	VACUATOR VALVE

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# Kohler Engine Installation



# **Kohler Engine Installation**

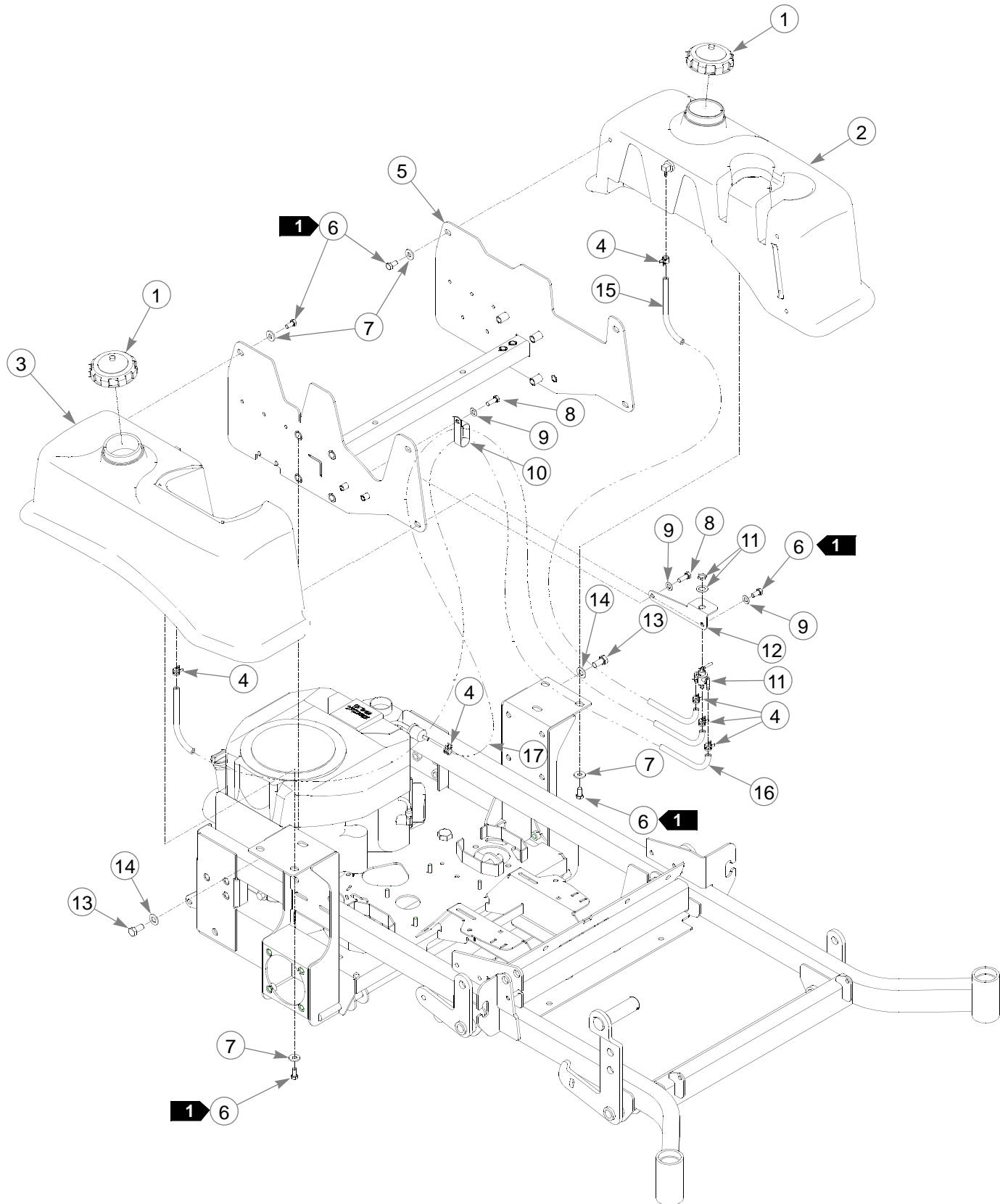
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	788216	788216	1	KOHLER 27HP ENGINE
2	799320	799320	1	COMMON WIRE HARNESS
3	058776	058776	4	NT .312-18 HXZY NL
4	768523	768523	29	FW .343 X .687 X .051/.080 HD ZN/YL
5	029876	029876	1	LW .312 INT-EXT TOOTH ZN
6	050161	050161	4	CS .312-18 X 1.75 HX G5
7	786673	786673	1	DONALDSON AIR CLEANER CAP
8	057661	057661	3	HOSE CLAMP
9	788943	788943	1	AIR FILTER INDICATOR
10	601216	601216	1	FITTING 90° STREET ELBOW
11	782763	782763	1	AIR CLEANER
12	785741	785741	1	MOUNTING BAND
13	034272	034272	6	NT .312-18 HX G5 ZN
14	366443	366443	1	REMOTE AIR CLEANER MOUNT BRACKET
15	036236	036236	9	CS .312-18 X 1.00 HX G5 ZNYC
16	795310	795310	1	REMOTE AIR FILTER HOSE (STRAIGHT)
17	796672	796672	1	3/8-18 OIL DRAIN VALVE
18	787713	787713	1	0.50" LOW PRESSURE HOSE
19	382168	382168	1	MUFFLER GUARD
20	365742	365742	1	ENGINE CAGE MOUNT PLATE
21	377994	377994	1	MMZ ROLLER HEAT SHIELD
22	016527	016527	4	CS .500-13 X 1.00 HX G5 ZNYC
23	767962	767962	4	FW .531 X 1.063 X .090 SAE HD ZN
24	029751	029751	2	CS .375-16 X 1.00 HXFLK ZNYC
25	705137	705137	4	FW .391 X 1.250 X .060 ZNYC
26	788018	788018	1	MUFFLER
27	788026	788026	1	MUFFLER MANIFOLD
28	785378	785378	1	1.50" MUFFLER CLAMP
29	016899	016899	2	NT .375-16 HXFLK ZNYC
30	789131	789131	1	HUSTLER Z FAN CONNECTION CAP

## **NOTES:**

1. Includes mounting hardware.
2. Part of Item 2 (799320 Common Wire Harness).
3. Engine oil capacity: Refer to engine owner's manual.
4. Engine RPM to be set at  $3600 \pm 50$ .
5. Supplied with engine.
6. Includes one (1) of Item 8 (057661 Hose Clamp).
7. Air filter service parts:

785261      MAIN AIR FILTER ELEMENT  
763318      VACUATOR VALVE

## **Fuel System Installation (Air Cooled Engines)**



## **Fuel System Installation (Air Cooled Engines)**

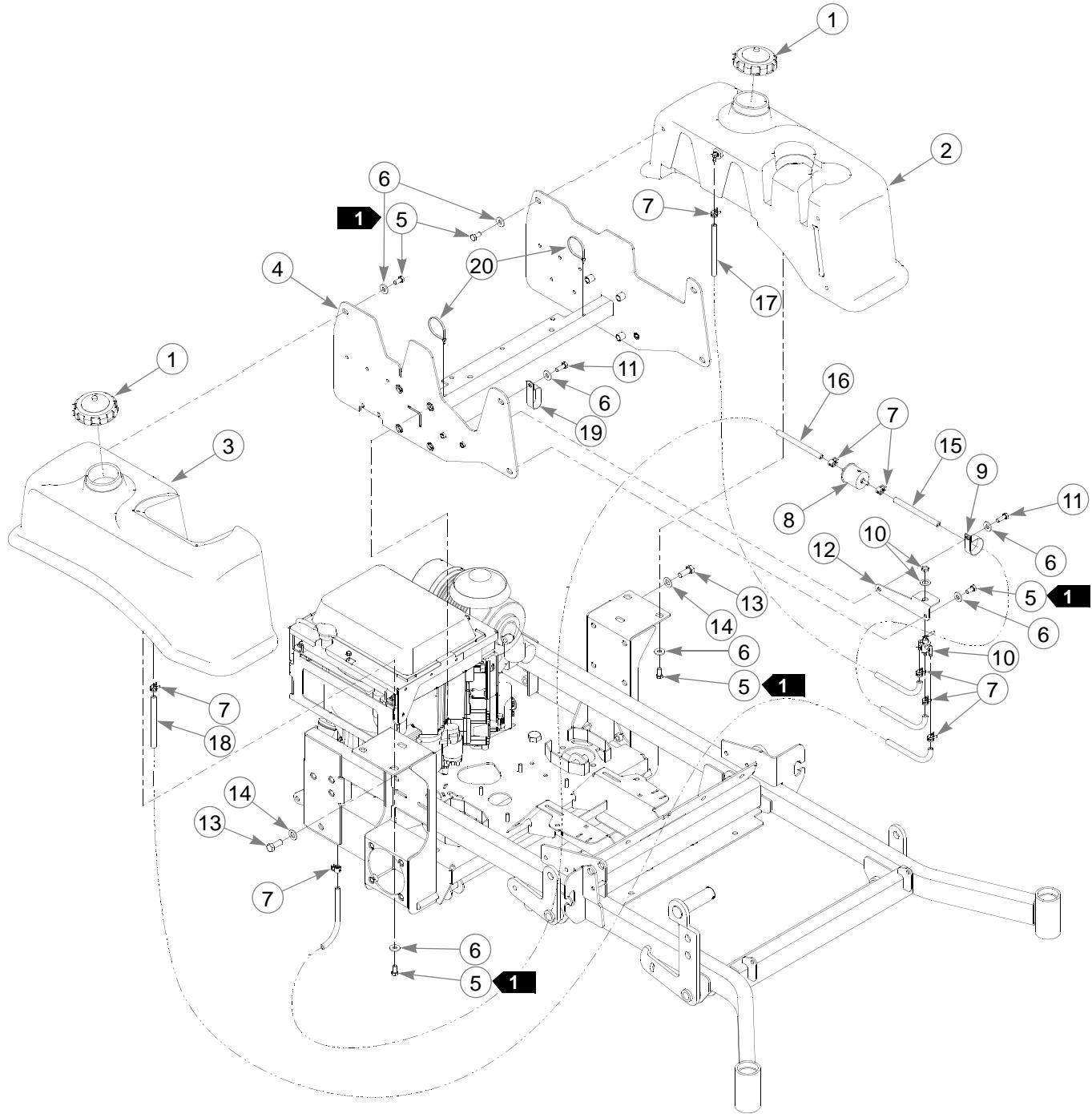
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	779306	779306	2	3.5" FUEL CAP
2	793240	793240	1	LEFT SIDE FUEL TANK
3	793232	793232	1	RIGHT SIDE FUEL TANK
4	000323	000323	6	CLIP
5	106732	N/A	1	REAR SEAT SUPPORT
6	055822	055822	12	CS .375-16 X .750 HX G5 ZN
7	712919	712919	11	FW .406 X 1.00 X .12 HRD ZN
8	036244	036244	2	CS .375-16 X 1.000 HX G5 ZN
9	767954	767954	3	FW .406 X .812 X .060 SAE HD ZN
10	797035	797035	1	HOSE CLAMP 1.75"
11	797084	797084	1	3-WAY NYLON FUEL VALVE
12	347989	347989	1	FUEL SHUT-OFF BRACKET
13	705954	705954	8	CS .500-13X1.25 HX G5 ZN
14	767962	767962	8	FW .531 X 1.063 X .090 SAE HD ZN
15	015818	015818	1	FUEL LINE 45.5"
16	015818	015818	1	FUEL LINE 26.5"
17	015818	015818	1	FUEL LINE 22.5"KAWASAKI
	015818	015818	1	FUEL LINE 36""HONDA
	015818	015818	1	FUEL LINE 38"KOHLER
	000331	000331	3	BLACK CABLE TIE (NOT SHOWN)

### **NOTES:**

1. Torque to 20 ft.-lbs.
2. Fuel tank service part not shown:

PN	DESCRIPTION
601529	SZ HOSE ASSY, SUCTION

## Fuel System Installation (Liquid Cooled Engines)



## ***Fuel System Installation (Liquid Cooled Engines)***

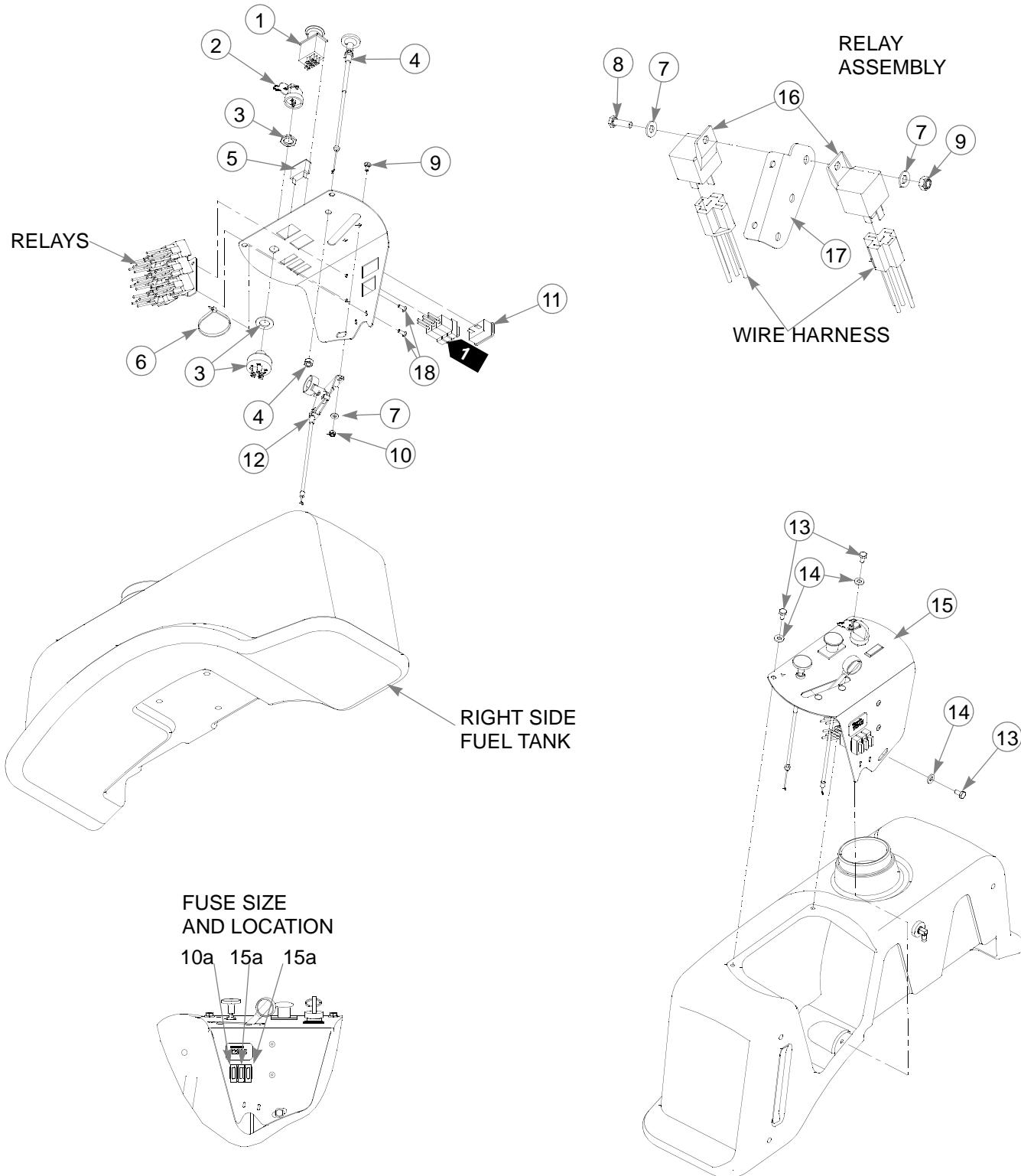
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	779306	779306	2	3.5" FUEL TANK CAP
2	793240	793240	1	LEFT SIDE Z FUEL TANK
3	793232	793232	1	RIGHT SIDE Z FUEL TANK
4	109678	N/A	1	REAR SEAT SUPPORT
5	055822	055822	12	CS .375-16 X .750 HX G5 ZN
6	712919	712919	14	FW .406X 1.00X.12 HRD Z
7	000323	000323	8	CLIP
8	068478	068478	1	IN-LINE FUEL FILTER
9	797035	797035	1	1.75"DIA RUBBER COATED CLAMP
10	797084	797084	1	3-WAY NYLON FUEL VALVE
11	036244	036244	2	CS .375-16 X 1.00 HX G5 ZNYC
12	347989	347989	1	FUEL SHUT-OFF BRACKET
13	705954	705954	8	CS .500-13X1.25 HX G5 Z
14	767962	767962	8	FW .531 X 1.063 X .090 SAE HD ZN
15	015818	015818	1	FUEL LINE 6.00" LONG
16	015818	015818	1	FUEL LINE 26.75" LONG
17	015818	015818	1	FUEL LINE 45.38" LONG
18	015818	015818	1	FUEL LINE 29.00" LONG
19	045088	045088	1	HOSE CLAMP 1"
20	000331	000331	3	BLACK CABLE TIE (NOT SHOWN)

### **NOTES:**

1. Torque to 20 ft.-lbs.
2. Fuel tank service part not shown:

PN	DESCRIPTION
601529	SZ HOSE ASSY, SUCTION

## Instrument Panel Assembly (Air Cooled)



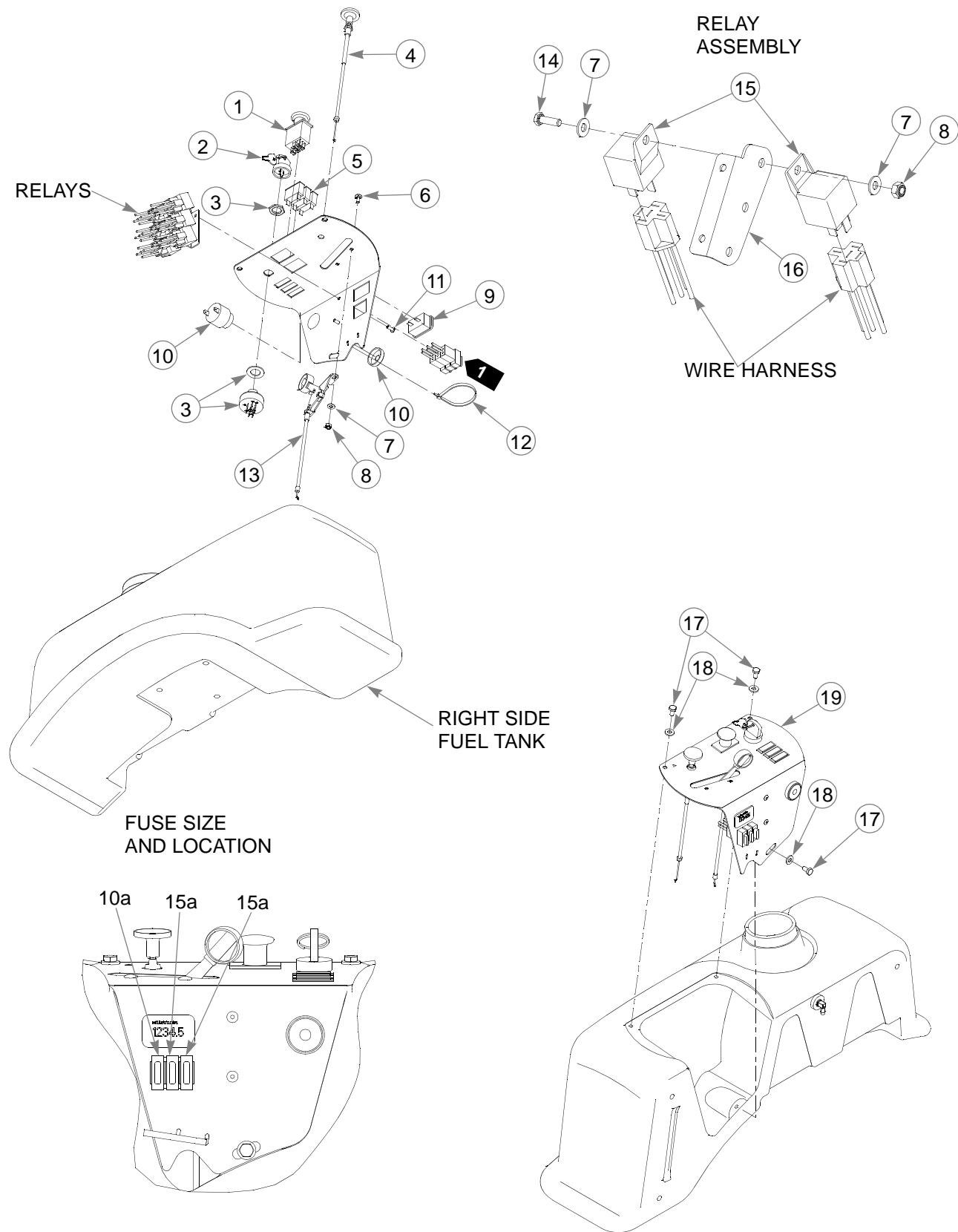
## **Instrument Panel Assembly (Air Cooled)**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	776476	776476	1	PTO SWITCH
2	785808	785808	1	KEY SET
3	045898	045898	1	KEY SWITCH
4	785030	785030	1	Z CHOKE CABLE (KAWASAKI)
	786657	786657	1	Z CHOKE CABLE (HONDA & KOHLER)
5	712257	712257	1	RED INDICATOR LIGHT
6	000430	000430	3	TIE STRAP
7	704932	704932	8	FW .219 X .500 X .048 ZN
8	714998	714998	3	MS #10-24 X .625 HX ZN
9	601098	601098	2	CB 10-24 X .500 ZYNC
10	059832	059832	5	NT #10-24 HX NL ZN
11	769166	769166	1	HOUR METER
12	778365	778365	1	THROTTLE CABLE (EXCEPT 29 HP KAWASAKI)
	601675	601675	1	THROTTLE CABLE 29 HP KAWASAKI, ONLY)
13	055947	055947	3	CS .250-20 X .500 HX G5 ZN
14	768515	768515	3	FW .281 X .625 X .051 /.080 HD ZN/YL
15	106633	106633	1	INSTRUMENT PANEL
16	601053	N/A	6	RELAY
17	107920	107920	1	RELAY BRACKET
18	601089	601089	2	RIVET .188 DIA BLK HD
	762195	N/A	1	DELAY MODULE (NOT SHOWN)

### **NOTES:**

1. Part of 799320 (Common Wire Harness)

## Instrument Panel Assembly (Liquid Cooled)



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## ***Instrument Panel Assembly (Liquid Cooled)***

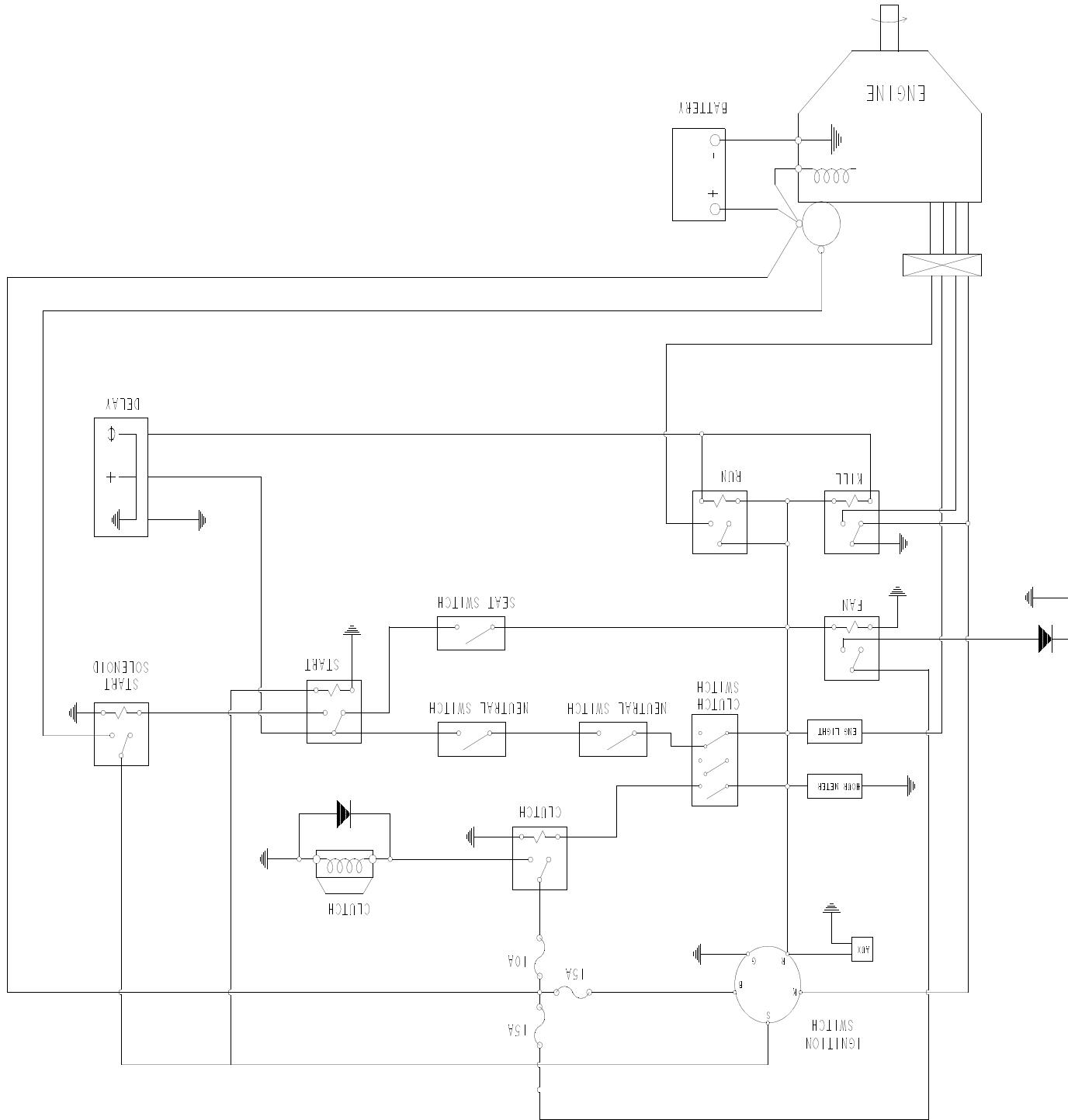
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	776476	776476	1	PTO SWITCH
2	785808	785808	1	KEY SET
3	045898	045898	1	KEY SWITCH
4	785030	785030	1	Z CHOKE CABLE
5	712257	712257	3	RED INDICATOR LIGHT
6	601098	601098	2	CB 10-24 X .500 ZYNC
7	704932	704932	8	FW .219 X .500 X .048 ZN
8	059832	059832	5	NT #10-24 HX NL ZN
9	769166	769166	1	HOUR METER
10	794347	794347	1	ULTRA LOUD WARBLE ALARM
11	601089	601089	2	RIVET .188 DIA BLK HD
12	000430	000430	3	TIE STRAP (ONE SHOWN)
13	787788	787788	1	THROTTLE CABLE
14	714998	714998	3	MS #10-24 X .625 HX ZN
15	601053	N/A	6	RELAY
16	107920	107920	1	RELAY BRACKET
17	055947	055947	3	CS .250-20 X .500 HX G5 ZN
18	768515	768515	3	FW .281 X .625 X .051 /.080 HD ZN/YL
19	106633	106633	1	INSTRUMENT PANEL
	762195	N/A	1	DELAY MODULE (NOT SHOWN)

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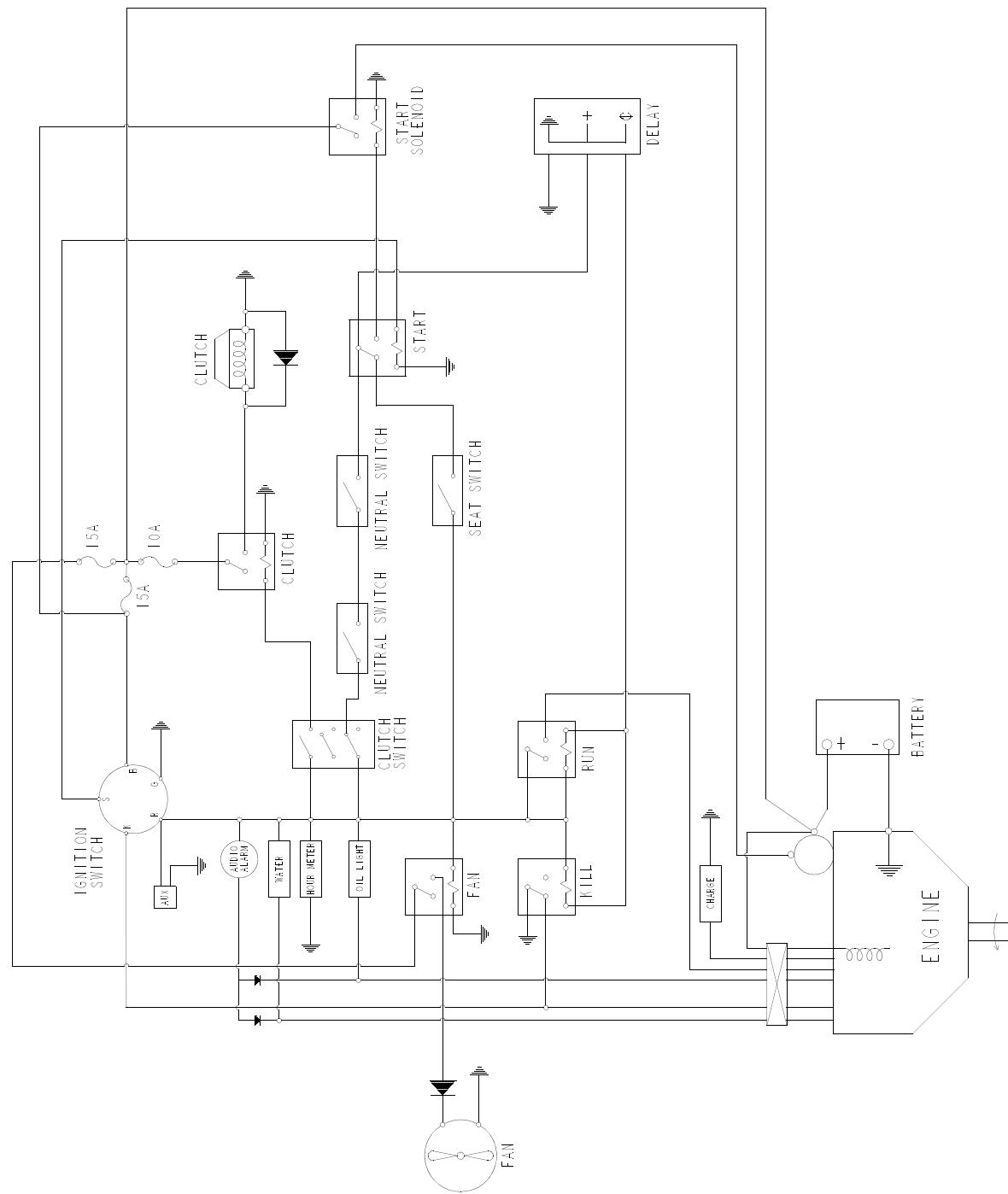
### **NOTES:**

1. Fuses are part of the wiring harness

# Electrical Schematic (799320)



# Electrical Schematic—Kawasaki LC (799338)



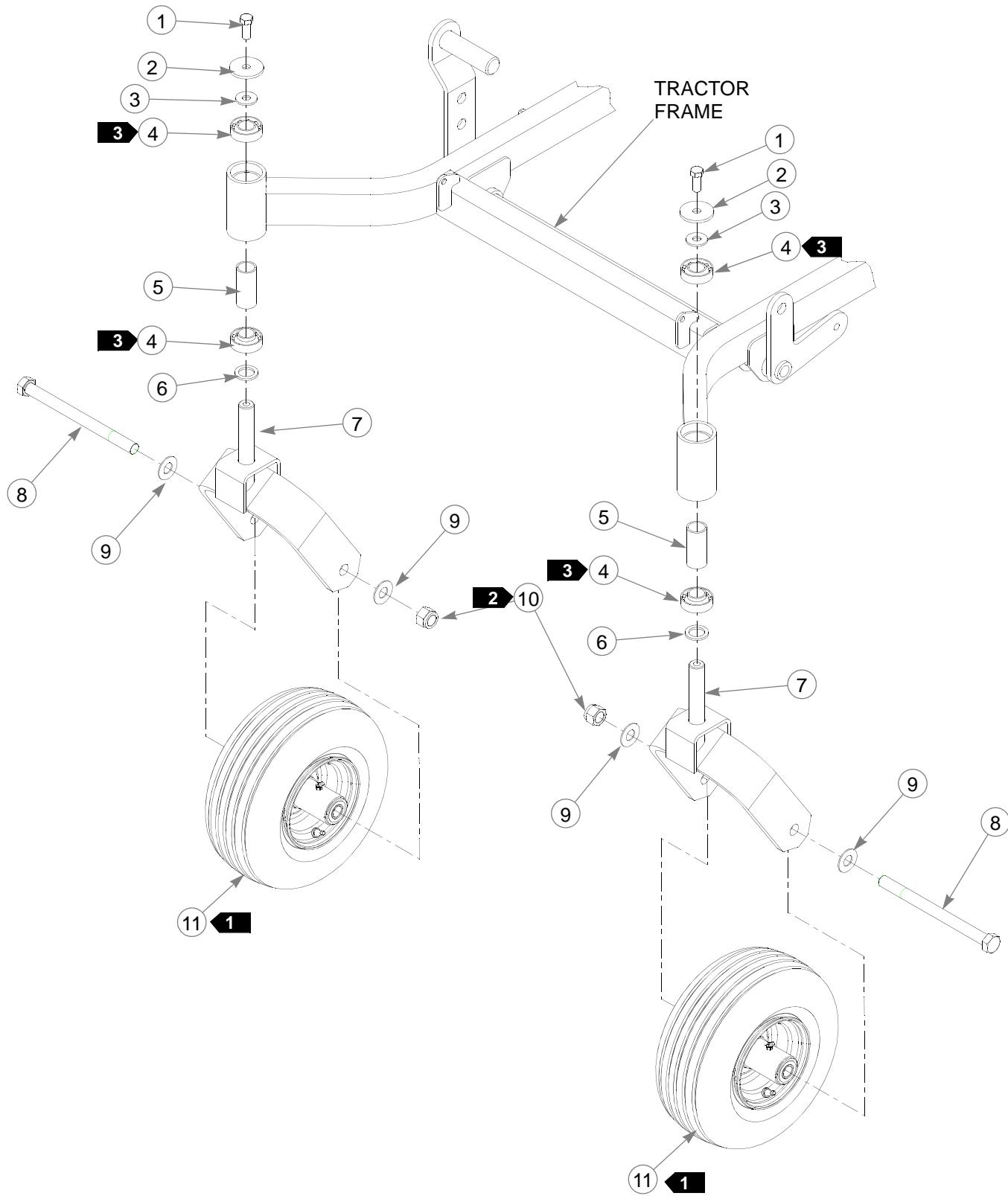


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## Chapter 6 Contents

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## **Front Wheel Assembly**



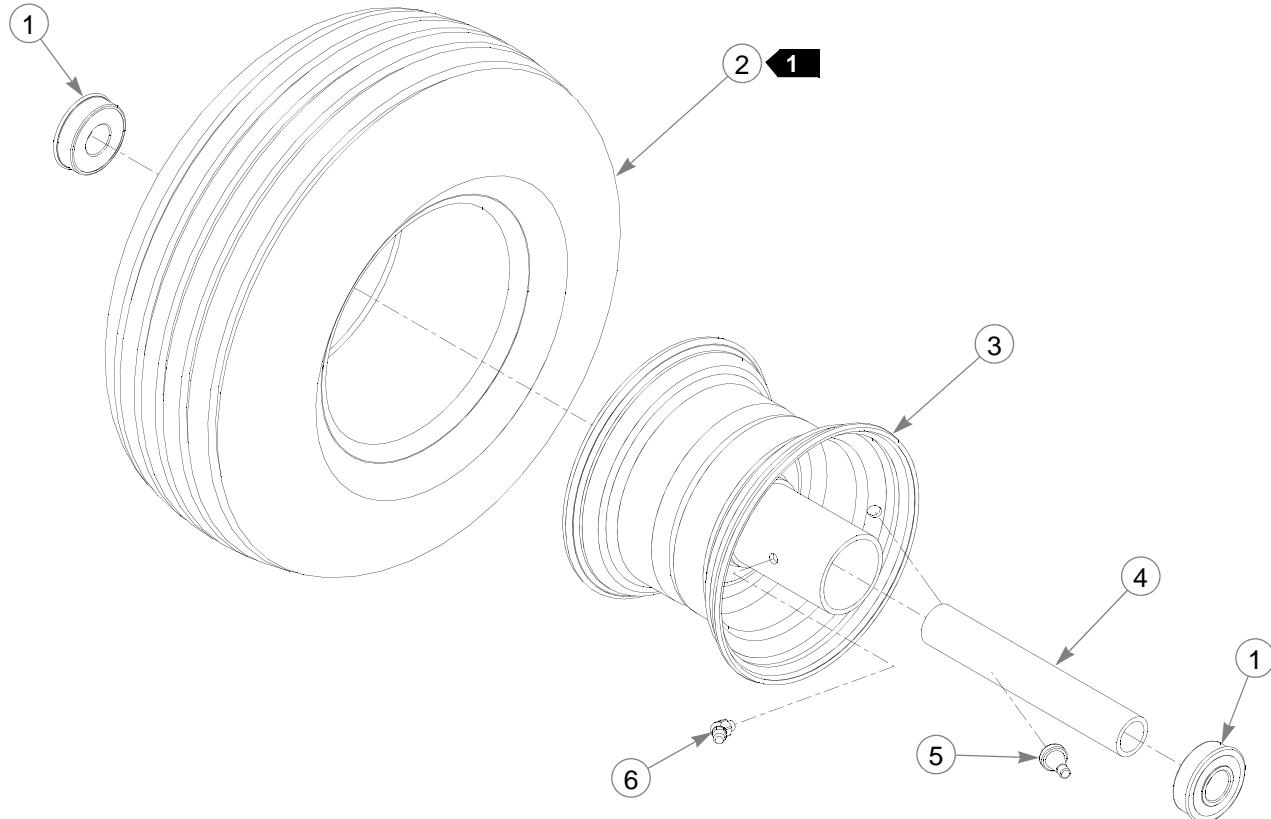
## **Front Wheel Assembly**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	705954	705954	2	CS .500-13 X 1.25 HX G5 ZN
2	344267	344267	2	FW .510 X 2.15 X .187 SPL ZN
3	712976	712976	2	FW .531X 1.375X.125 ZNY
4	784223	784223	4	BEARING W/O COLLAR
5	387035	387035	2	SPACER, 1.07 X 1.312 X 2.793
6	045765	045765	2	FW 1.030 X 1.500 X.134 ZN
7	349266	349266	2	FORK
8	041475	041475	2	CS .750-10 X 9.50 HX ZN
9	025296	025296	4	FW .760 X 1.625 X .08 ZN
10	061101	061101	2	NT .750-10 HX NL ZN
11	747782	747782	2	WHEEL & TIRE ASSY
	789537	N/A	2	OPTIONAL SEMI-PNEUMATIC WHEEL/TIRE ASSEMBLY

### **NOTES:**

1. Apply grease to zerks.
2. Torque to 100 ft.-lbs.
3. Assemble with extended inner race toward item 5 (387035 Spacer, 1.07 x 1.312 x 2.793).

## Front Wheel Breakdown—747782

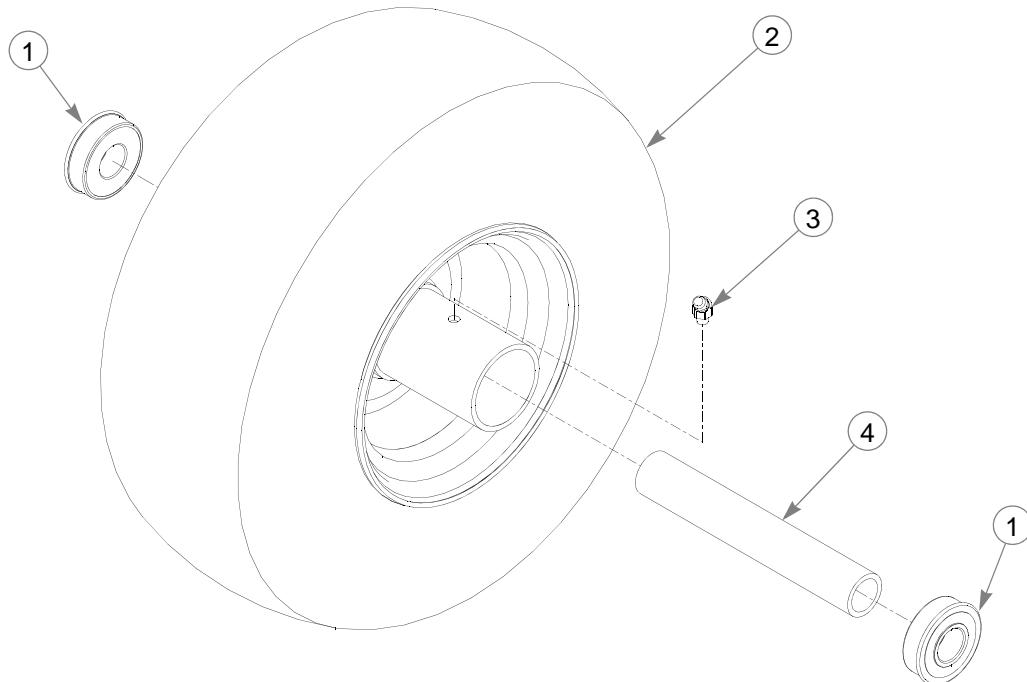


ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	039677	N/A	2	WHEEL BEARING
2	747741	N/A	1	13 X 6.50 TIRE
3	747832	N/A	1	6 X 4.5 WHEEL
4	782771	N/A	1	BEARING SPACER
5	019521	N/A	1	TIRE VALVE
6	015511	N/A	1	GREASE FITTING 45 DEG 1/4

### NOTES:

1. Inflate tire to 8-12 psi.

## **Optional Semi-Pneumatic Tire/Wheel—789537**



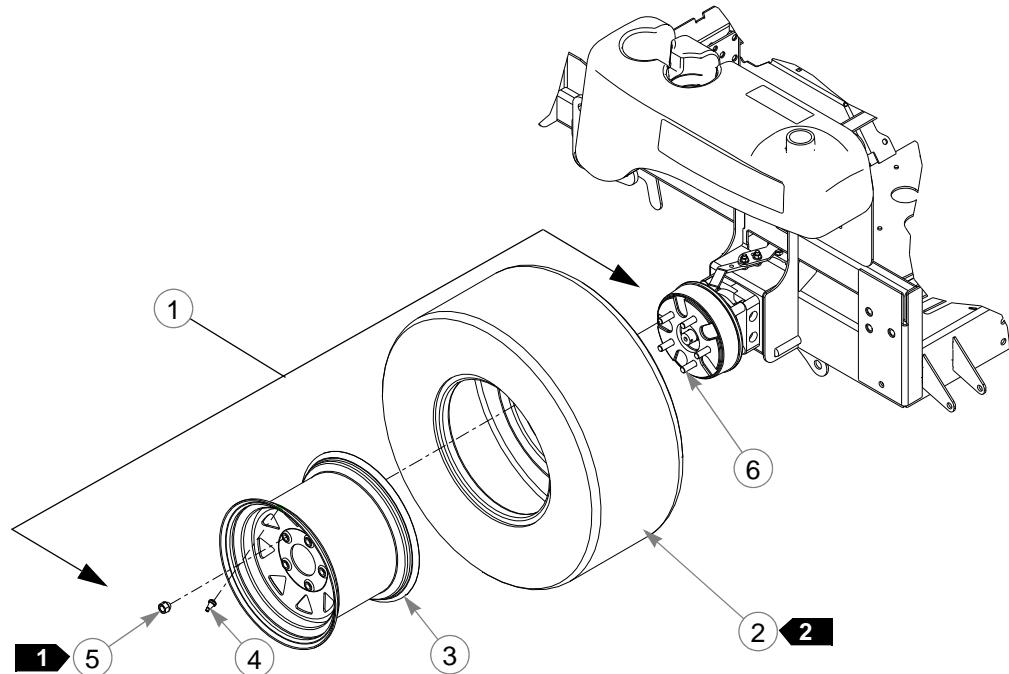
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ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	039677	N/A	2	WHEEL BEARING
2	789537	N/A	1	TIRE/WHEEL ASSEMBLY
3	015511	N/A	1	GREASE FITTING 45 DEG 1/4
4	782771	N/A	1	BEARING SPACER

---

### **NOTES:**

## Drive Wheel Assembly Installation



ITEM NO.	SERVICE PART NO.	PART NO.	QTY	DESCRIPTION
1	784058	784058	2	WHEEL & TIRE ASSY FOR 66" (QTY PER TRACTOR)
2	781245	N/A		TIRE, 12 X 12 X 24 FOR 66"
3	784066	N/A		WHEEL ASSEMBLY 12 X 8.50 FOR 66"
4	019521	N/A		TIRE VALVE
5	061077	061077	10	WHEEL NUT (QTY PER TRACTOR)
6	770859	N/A	10	1/2" WHEEL LUG STUD

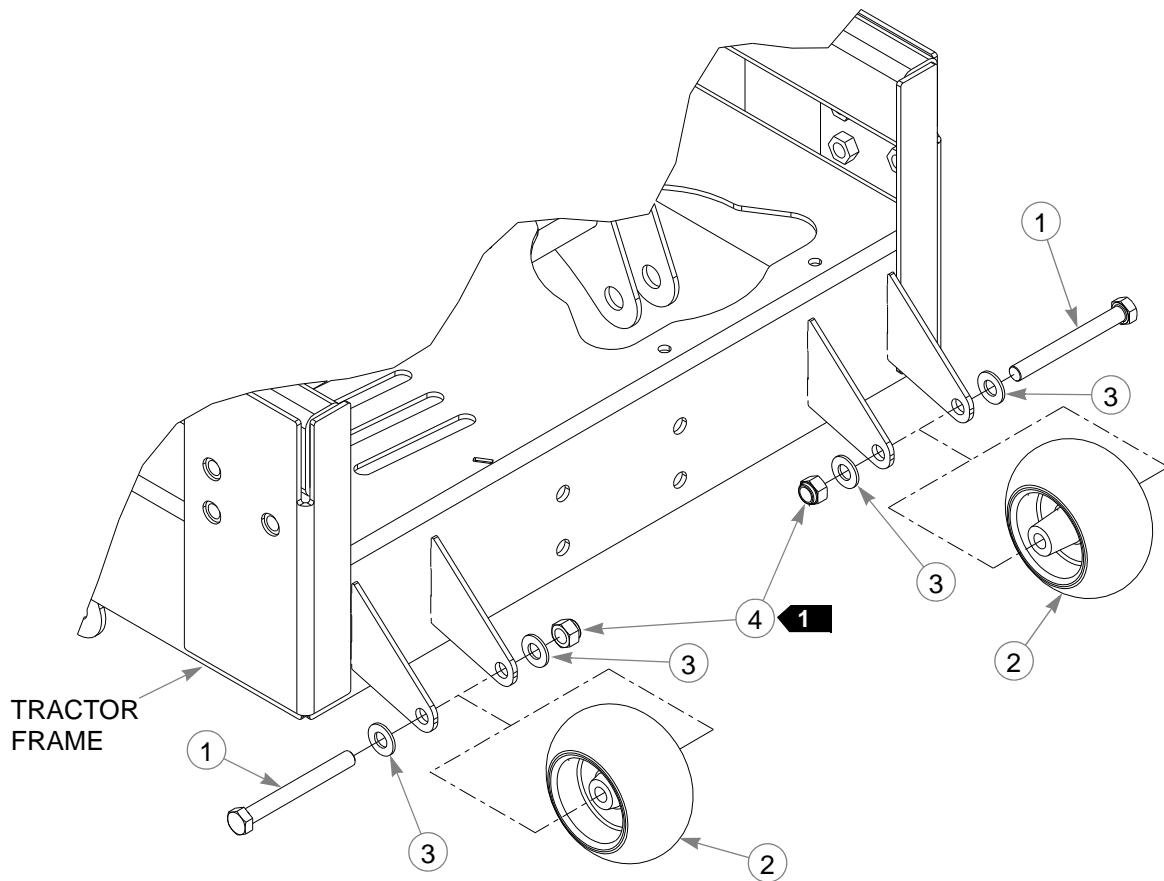
3	1	601238	601238	2	WHEEL & TIRE ASSY FOR 60" & 54" (QTY PER TRACTOR)
	2	781245	N/A		TIRE, 12 X 12 X 24 FOR 60" & 54"
3	3	796250	N/A		WHEEL ASSEMBLY 12 X 8.50 FOR 60" & 54"
	4	019521	N/A		TIRE VALVE
	5	061077	061077	10	WHEEL NUT (QTY PER TRACTOR)
	6	770859	N/A	10	1/2" WHEEL LUG STUD

1	782078	782078	2	WHEEL & TIRE ASSY FOR 54" RD (QTY PER TRACTOR)
2	782284	NA		TIRES 23 X 9.50-12 FOR 54" RD
3	782086	N/A		WHEEL ASSEMBLY 12 X 7.00 FOR 54" RD
4	019521	N/A		TIRES VALVE
5	061077	061077	10	WHEEL NUT (QTY PER TRACTOR)
6	770859	N/A	10	1/2" WHEEL LUG STUD

### NOTES:

1. Torque to 65-75 ft. lbs.
2. Inflate tire to 8-12 psi.
3. For mowers with serial numbers prior to 07120009, use 781237 for the wheel and tire assembly, and 781252 for the wheel assembly.

## Anti-Rollover Wheel Assembly



ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	068239	068239	2	CS .500-13 X 4.500 HX G5 ZN
2	031997	031997	2	ANTI-SCALP WHEEL
3	767962	767962	4	FW .531 X 1.063 X .090 SAE HD ZN
4	781567	781567	2	NT .50-13 HX LK NY

### NOTES:

1. Do not torque, wheel must turn freely.

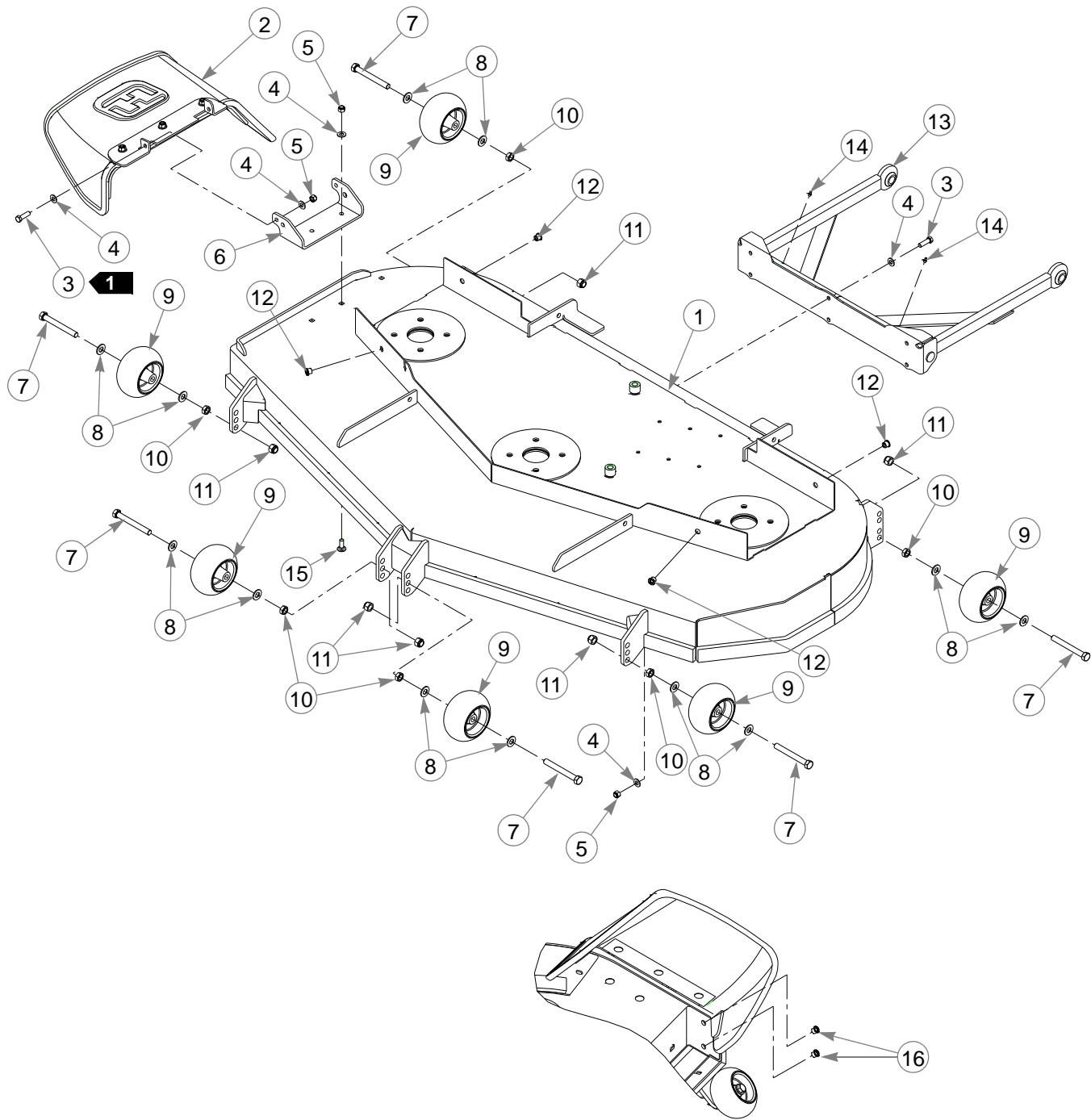


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## Chapter 7 Contents

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## **66" Side Discharge XR7 Deck Assembly**



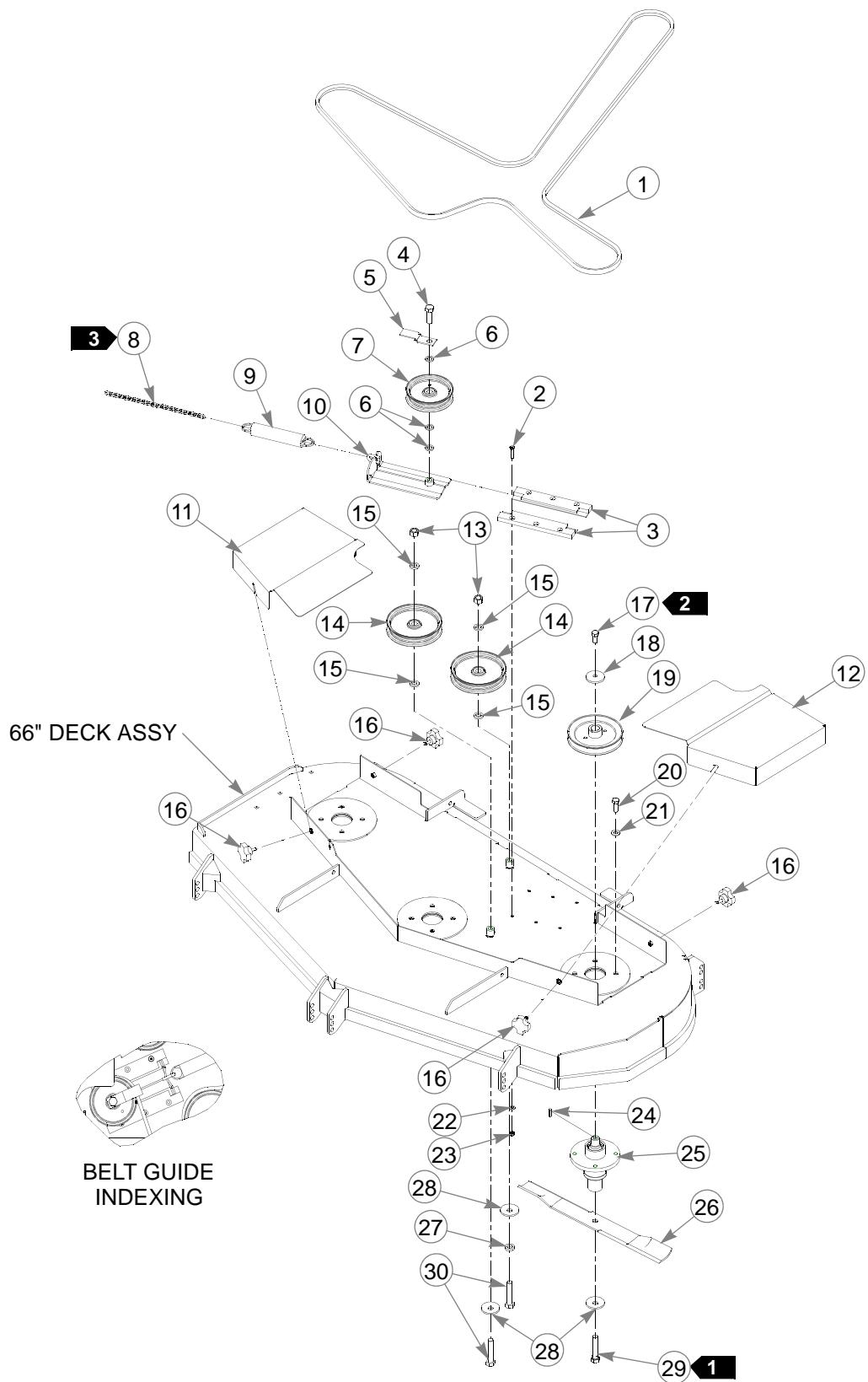
## ***66" Side Discharge XR7 Deck Assembly***

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
<b>3</b> 1	548446	108536	1	66" DECK W/A CRATED
2	798694	798694	1	RUBBER CHUTE ASSEMBLY
3	052860	052860	8	CS .375-16 X 1.250 HX G5 ZN
4	767954	767954	18	FW .406 X .812 .060 SAE HD ZN
5	086660	086660	10	NT .375-16 HXZY NL
6	103010	103010	1	DISCHARGE CHUTE MOUNT BRACKET
7	781708	N/A	6	CS .500-13 X 4.25 HX G5 ZN
8	767962	N/A	12	FW .531 X 1.063 X .090 SAE HD ZN
9	031997	N/A	6	ANTI-SCALP WHEEL
10	053199	N/A	6	NT .500-13 HX JAM ZN
11	781567	781567	6	NT .50-13 HX LK NY
12	808485	808485	4	5/16-18 THREAD RIVET NUT
13	314104	314104	1	PUSHER
14	015495	015495	2	STRAIGHT GREASE FITTING
15	025395	025395	2	CB .375-16 X 1.00 STD CD
16	808493	808493	2	3/8-16 THREAD RIVET NUT
<b>2</b>	788166	788166	6	ANTI SCALP WHEEL ASSY

### **NOTES:**

1. Do not torque, Item 2 (798694 Discharge Chute) must pivot freely.
2. Includes items 7, 8, 9, and 10.
3. Service part deck includes decals (see "66" Side Discharge XR7 Deck Decals" on page 9-4 for listing of decals).

## **66" Side Discharge XR7 Deck Pulley Assembly**



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## ***66" Side Discharge XR7 Deck Pulley Assembly***

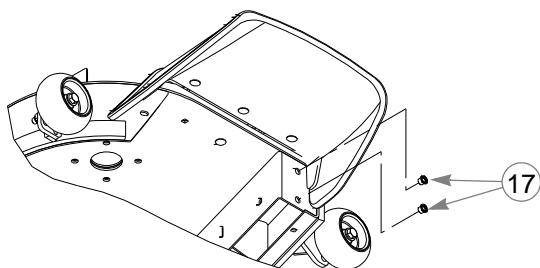
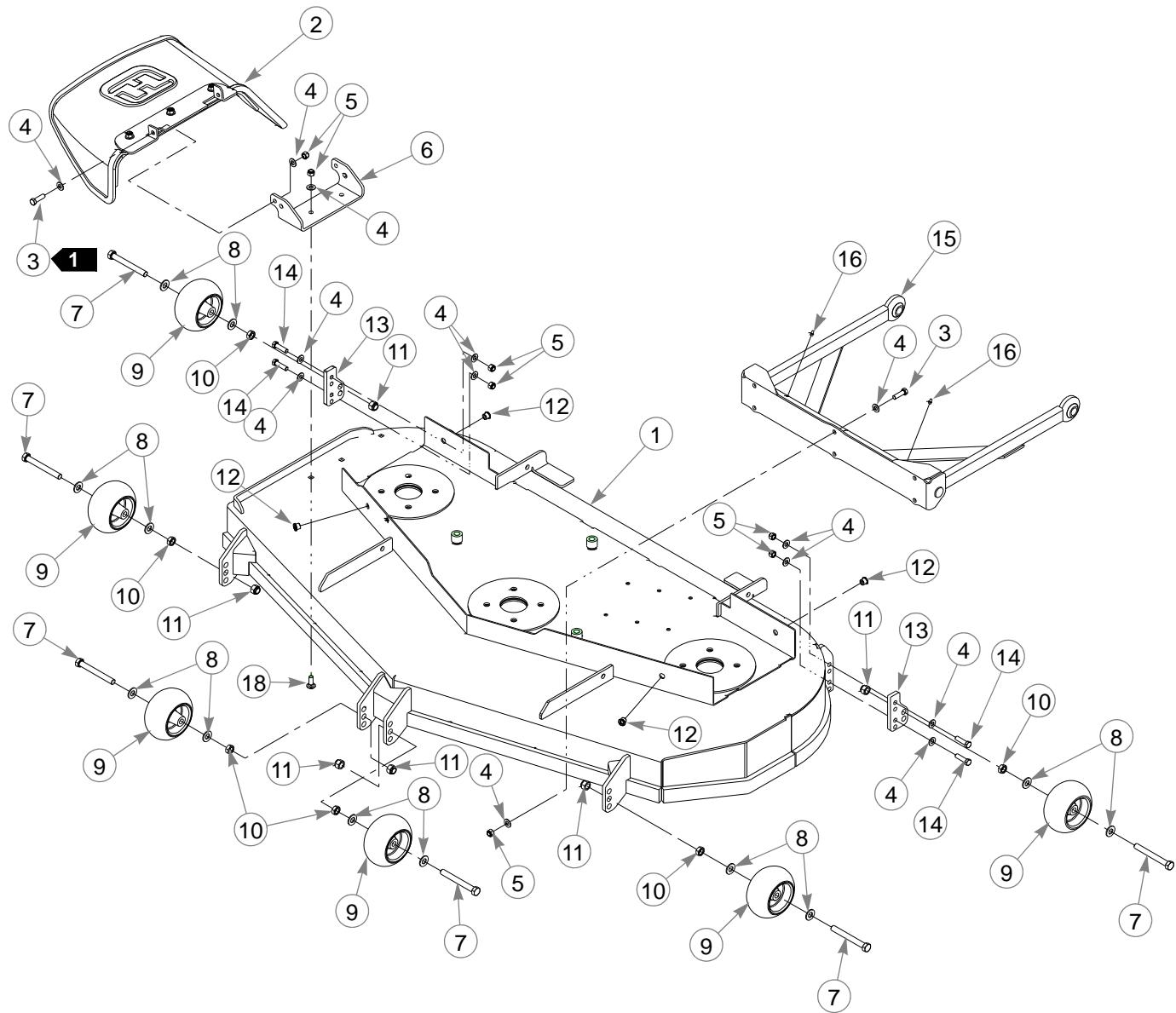
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	797936	797936	1	B-SECTION BELT
2	797910	797910	6	CS .312-18 X 1.50 FLT SH ZNYC
3	601434	601434	2	UHMW IDLER SLIDE
4	025007	025007	1	CS .625-11 X 1.75 HX G5 ZNYC
5	347443	347443	1	DECK BELT IDLER GUIDE
6	028118	028118	3	FW .62 X 1.00X.134 ZN
7	781856	781856	1	5.00" IDLER PULLEY
8	373191	059931	1	SIDE MOUNT CHAIN (21 LINKS)
9	781302	781302	1	IDLER SPRING
10	350884	350884	1	DECK IDLER
11	103721	103721	1	RS 66" XR7 PULLEY COVER
12	103739	103739	1	LS 66" XR7 PULLEY COVER
13	016972	016972	2	NT .625-11 HX G5 ZNYC
14	781385	781385	2	6.00" IDLER PULLEY,
15	797449	797449	4	FW .650X1.125X.18 ZNYCG5
16	792002	792002	4	5/16-18 X 3/4"MALE KNOB
17	016527	016527	3	CS .500-13 X 1.00 HX G5 ZN
18	752386	752386	3	CW .515X 2.25X .204 ZN
19	798975	798975	3	B-SEC 6.32 EOD PULLEY
20	705954	705954	12	CS .500-13 X 1.25 HX G5 ZNYC
21	767962	767962	12	FW .531 X 1.063 X .090 SAE HD ZN
22	768523	768523	6	FW .343 X .687 X .051/.080 HD ZN
23	058776	058776	6	NT .312-18 HXZY NL
24	212472	212472	3	KEY 1/4 SQ X 1.00 LONG
25	796235X	796235	3	SPINDLE HOUSING ASSEMBLY
26	798496	798496	3	BLADE, F22.50"-H-F-CW
27	769257	769257	1	FW .656X 1.250X.250 ZNYC
28	782474	782474	5	CW .631 2.250 X .187 PNT
29	029934	029934	3	CS .625-11 X 3.00 HX G5 ZNYC
30	783738	783738	2	CS .625-11 X 3.00 FULL HX G5 ZN

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### **NOTES:**

1. Torque to 118 ft. lbs.
2. Torque to 67-75 ft. lbs.
3. See "66" & 54" Side Discharge Deck Belt Routing and Tensioning" on page 8-4 for belt tensioning.
4. See "Spindle Assembly-796235" on page 7-28 for breakdown.
5. Item 3 (601434) replaces idler slide components 600171, 600189, and 786335 found on tractors with serial numbers prior to 08010000.

## **60" Side Discharge XR7 Deck Assembly**



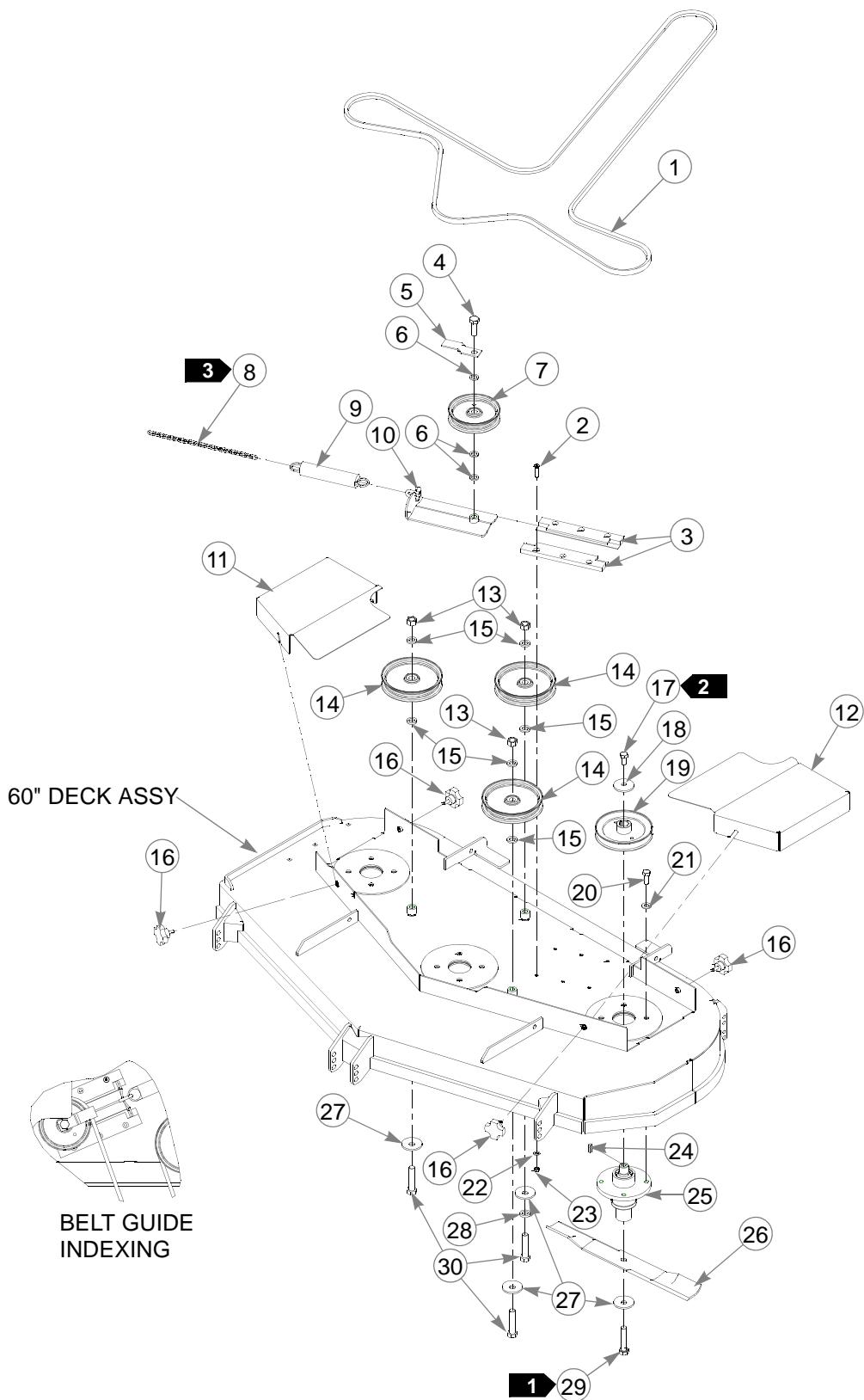
## ***60" Side Discharge XR7 Deck Assembly***

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
3 ➤ 1	548438	108501	1	60" DECK W/A CRATED
2	798694	798694	1	RUBBER CHUTE ASSEMBLY
3	052860	052860	8	CS .375-16 X 1.25 HX G5
4	767954	767954	26	FW .406 X .812 X .060 SAE HD ZN
5	086660	086660	14	NT .375-16 HX LK NY
6	103010	103010	1	DISCHARGE CHUTE MOUNT BRACKET
7	781708	N/A	6	CS .500-13 X 4.25 HX G5 ZN
8	767962	N/A	12	FW .531 X 1.063 X .090 SAE HD ZN
9	031997	N/A	6	ANTI-SCALP WHEEL
10	053199	N/A	6	NT .500-13 HX JAM ZN
11	781567	781567	6	NT .50-13 HX LK NY
12	808485	808485	4	5/16-18 THREAD RIVET NUT
13	103184	103184	2	REAR ANTI-SCALP BRACKET
14	005116	005116	4	CS .375-16 X 1.375 HX G5 ZNYC
15	314104	314104	1	PUSHER
16	015495	015495	2	STRAIGHT GREASE FITTING
17	808493	808493	2	3/8-16 THREAD RIVET NUT
18	025395	025395	2	CB .375-16 X 1.00 STD CD
2 ➤	788166	788166	4	ANTI SCALP WHEEL ASSY

### **NOTES:**

1. Do not torque, Item 2 (798694 Discharge Chute) must pivot freely.
2. Includes items 7, 8, 9, and 10.
3. Service part deck includes decals (see "60" Side Discharge XR7 Deck Decals" on page 9-5 for listing of decals).

## **60" Side Discharge XR7 Deck Pulley Assembly**



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## ***60" Side Discharge XR7 Deck Pulley Assembly***

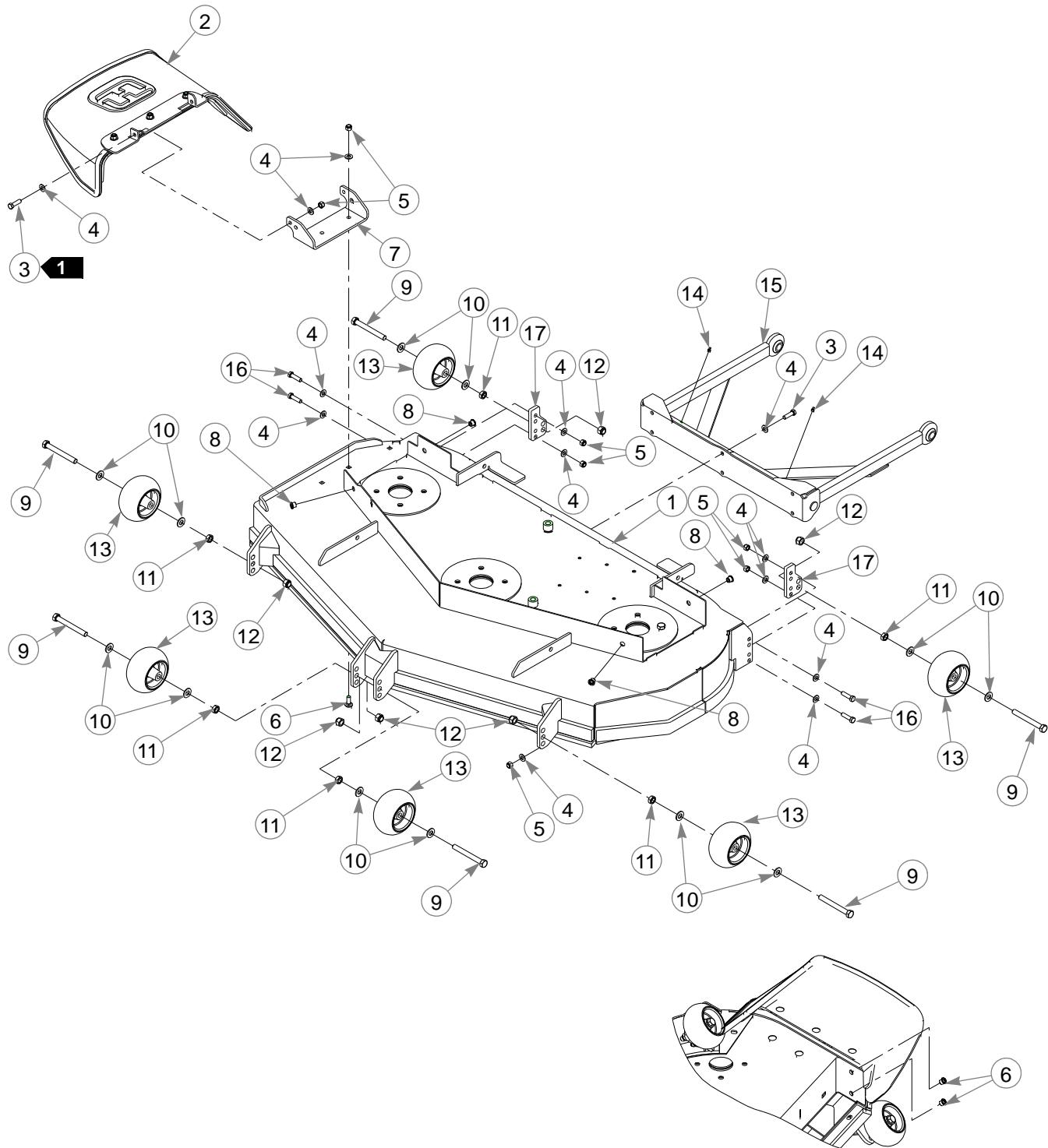
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	797720	797720	1	B-SECTION BELT
2	797910	797910	6	CS .312-18 X 1.50 FLT SH ZNYC
3	601434	601434	2	UHMW IDLER SLIDE
4	025007	025007	1	CS .625-11 X 1.75 HX G5 ZNYC
5	347443	347443	1	DECK BELT IDLER GUIDE
6	028118	028118	3	FW .62 X 1.00X.134 ZN
7	781856	781856	1	5.00" IDLER PULLEY
8	373191	059931	1	SIDE MOUNT CHAIN (21 LINKS)
9	781302	781302	1	IDLER SPRING
10	350884	350884	1	DECK IDLER
11	103192	103192	1	RS 60" XR7 PULLEY COVER
12	103200	103200	1	LS 60" XR7 PULLEY COVER
13	016972	016972	3	NT .625-11 HX G5 ZNYC
14	781385	781385	3	6.00" IDLER PULLEY,
15	797449	797449	6	FW .650X1.125X.18 ZNYCG5
16	792002	792002	4	5/16-18 X 3/4"MALE KNOB
17	016527	016527	3	CS .500-13 X 1.00 HX G5 ZN
18	752386	752386	3	CW .515X 2.25X .204 ZN
19	770842	770842	3	DECK DRIVE PULLEY
20	705954	705954	12	CS .500-13 X 1.25 HX G5 ZNYC
21	767962	767962	12	FW .531 X 1.063 X .090 SAE HD ZN
22	768523	768523	6	FW .343 X .687 X .051/.080 HD ZN
23	058776	058776	6	NT .312-18 HXZY NL
24	212472	212472	3	KEY 1/4 SQ X 1.00 LONG
25	796235X	796235	3	SPINDLE HOUSING ASSEMBLY
26	794685	794685	3	BLADE, F20.50" H-F-CW
27	782474	782474	6	CW .631 2.250 X .187 PNT
28	769257	769257	1	FW .656X 1.250X.250 ZNYC
29	029934	029934	3	CS .625-11 X 3.00 HX G5 ZNYC
30	783738	783738	3	CS .625-11 X 3.00 FULL HX G5 ZN

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### **NOTES:**

1. Torque to 118 ft. lbs.
2. Torque to 65-75 ft. lbs.
3. See "60" Side Discharge Deck Belt Routing and Tensioning" on page 8-5 for belt tensioning.
4. See "Spindle Assembly-796235" on page 7-28 for breakdown.
5. Item 3 (601434) replaces idler slide components 600171, 600189, and 786335 found on tractors with serial numbers prior to 08010000.

## ***54" Side Discharge XR7 Deck Assembly***



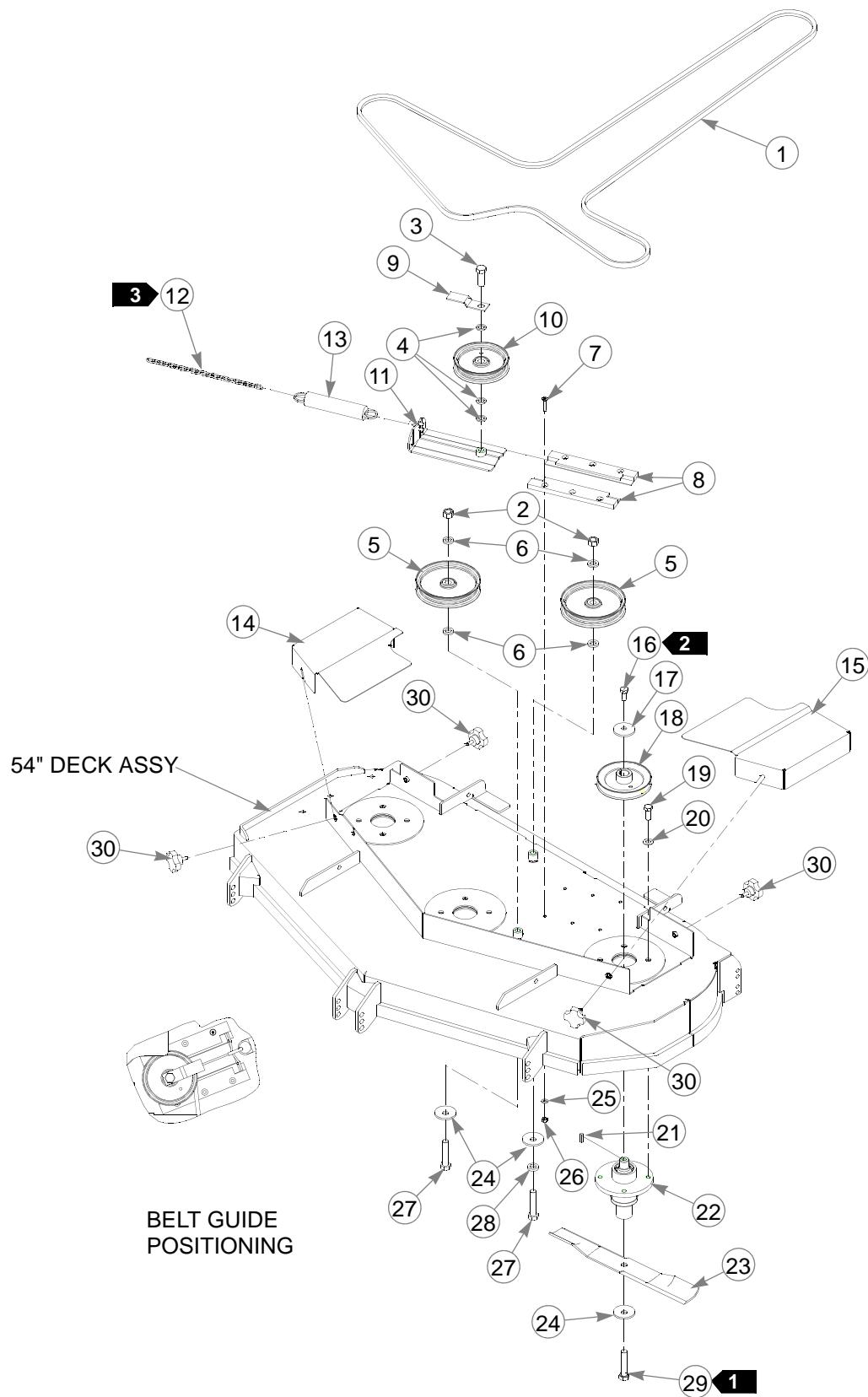
## 54" Side Discharge XR7 Deck Assembly

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
6 1	548420	108607	1	54" DECK W/A CRATED
2	798694	798694	1	54" DISCHARGE CHUTE
3	052860	052860	8	CS .375-16 X 1.25 HX G5 ZN
4	767954	767954	26	FW .406 X .812 X .060 SAE HD ZN
5	086660	086660	14	NT .375-16 HX LK NY
6	025395	025395	2	CB .375-16X 1.00 STD CD
7	103010	103010	1	DISCHARGE CHUTE MOUNT BRACKET
8	808485	808485	4	5/16-18 THREAD RIVET NUT
9	781708	N/A	6	CS .500-13 X 4.25 HX G5 ZN
10	767962	N/A	12	FW .531 X 1.063 X.090 SAE HD ZN
11	053199	N/A	6	NT .500-13 HX JAM ZN
12	781567	781567	6	NT .50-13 HX LK NY
13	031997	N/A	6	ANTI-SCALP WHEEL
14	015495	015495	2	STRAIGHT GREASE FITTING
15	314104	314104	1	PUSHER
16	005116	005116	4	CS .375-16X1.375 HX G5
17	103184	103184	2	REAR ANTI-SCALP BRACKET
18	808493	808493	2	3/8-16 THREAD RIVET NUT
2	788166	788166	6	ANTI-SCALP WHEEL ASSEMBLY

### NOTES:

1. Do not torque, Item 2 (798694 Discharge Chute) must pivot freely.
2. Includes items 9, 10, 11, and 13.
3. Secure Item 11 (053199 Jam Nut) to bolt with a drop of Loctite® (271 Red). Tighten Item 11 to shank of Item 9 (781708 Cs .500-13 X 4.25 Hx G5 Zn). Anti-scalp wheel must turn freely.
4. Assemble in top hole for shipping purposes.
5. Item 15 (314104 Pusher) installed as shown with zerks pointing upward, apply grease to zerks.
6. Service part deck includes decals (see "54" Side Discharge XR7 Deck Decals" on page 9-6 for listing of decals) and item 2 (Discharge Chute).

## **54" Side Discharge XR7 Deck Pulley Assembly**



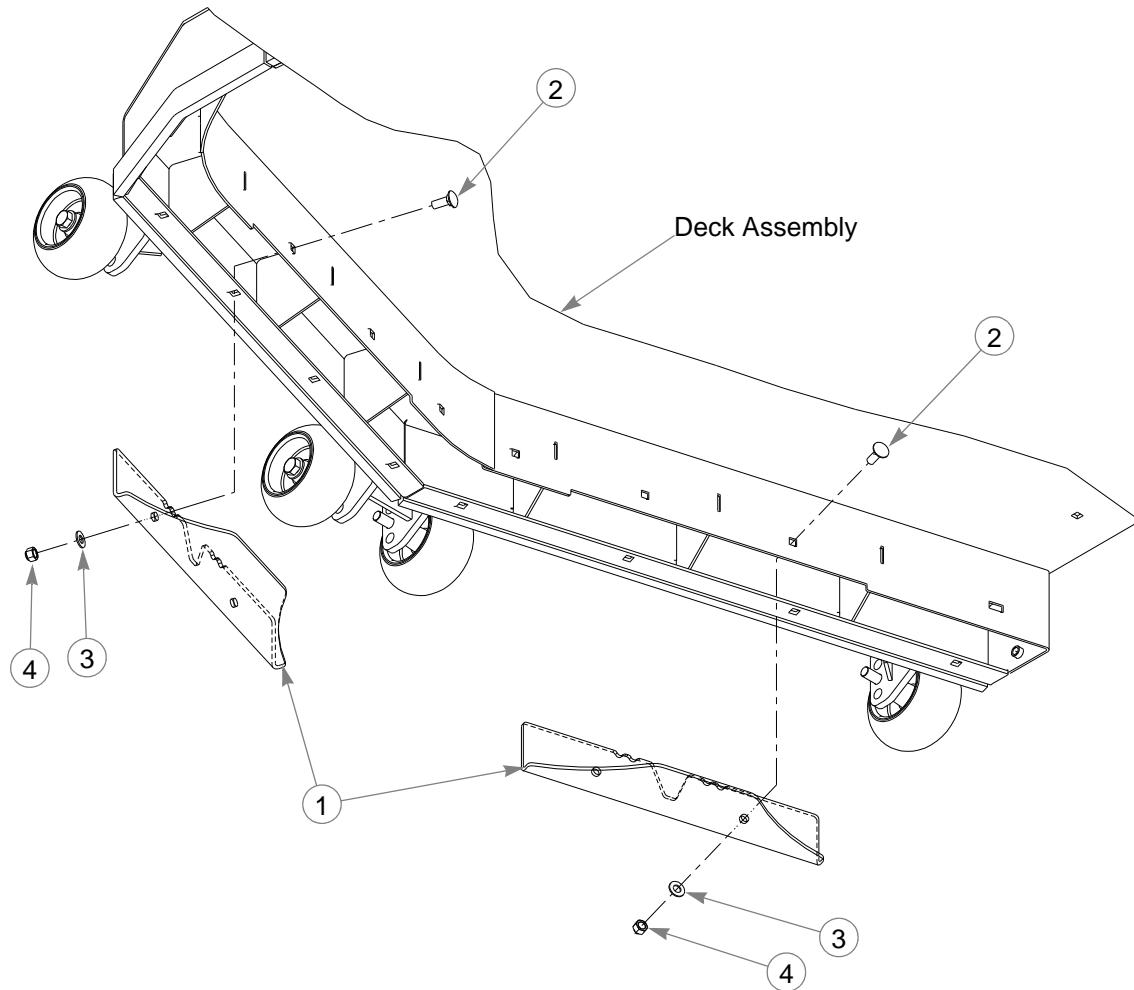
## **54" Side Discharge XR7 Deck Pulley Assembly**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	797928	797928	1	B-SECTION BELT
2	016972	016972	2	NT .625-11 HX G5 ZNYC
3	025007	025007	1	CS .625-11 X 1.750 HX G5
4	028118	028118	3	FW .62 X 1.00 X .134 ZN
5	781385	781385	2	6.00" IDLER PULLEY
6	797449	797449	4	FW .650X1.125 X .18 ZNYCG5
7	797910	797910	6	CS .312-18 X 1.50 FLT SH ZY
8	601434	601434	2	UHMW IDLER SLIDE
9	347443	347443	1	DECK BELT IDLER TOP GUIDE
10	781856	781856	1	5.00" IDLER PULLEY
11	350884	350884	1	DECK IDLER
12	373191	059931	1	SIDE MOUNT CHAIN 21 LINKS
13	781302	781302	1	IDLER SPRING
14	103986	103986	1	RS 54" PULLEY COVER
15	103994	103994	1	LS 54" PULLEY COVER
16	016527	016527	3	CS .500-13 X 1.00 HX G5 ZN
17	752386	752386	3	CW .515 X 2.25 X .204 ZN
18	798967	798967	3	DECK DRIVE PULLEY
19	705954	705954	12	CS .500-13X1.25 HX G5 ZY
20	767962	767962	12	FW .531 X 1.063 X .090 SAE
21	212472	212472	3	KEY 1/4 SQ X 1.00 LONG
22	796235X	796235	3	DECK SPINDLE ASSY
23	797696	797696	3	BLADE, F18.50"-H-F-CW
24	782474	782474	5	CW .631 X 2.250 X .187 PNT
25	768523	768523	6	FW .343 X .687 X .051/.080 H
26	058776	058776	6	NT .312-18 HXZY NL
27	783738	783738	2	CS .625-11 X 3.00 FULL HX G5 ZN
28	769257	769257	1	FW .656 X 1.250 X .250 ZNY
29	029934	029934	3	CS .625-11 X 3.00 HX G5 ZNYC
30	792002	792002	4	5/16-18 X 3/4"MALE KNOB

### **NOTES:**

1. Torque to 118 ft. lbs.
2. Torque to 65-75 ft. lbs.
3. See "66" & 54" Side Discharge Deck Belt Routing and Tensioning" on page 8-4 for belt tensioning.
4. See "Spindle Assembly-796235" on page 7-28 for breakdown.
5. Item 8 (601434) replaces idler slide components 600171, 600189, and 786335 found on tractors with serial numbers prior to 08010000.
6. Item 6 (601434) replaces idler slide components 600171, 600189, and 786335 found on tractors with serial numbers prior to 08010000.

## **Side Discharge Deck—"A" Adaptors**



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## ***Side Discharge Deck—"A" Adaptors***

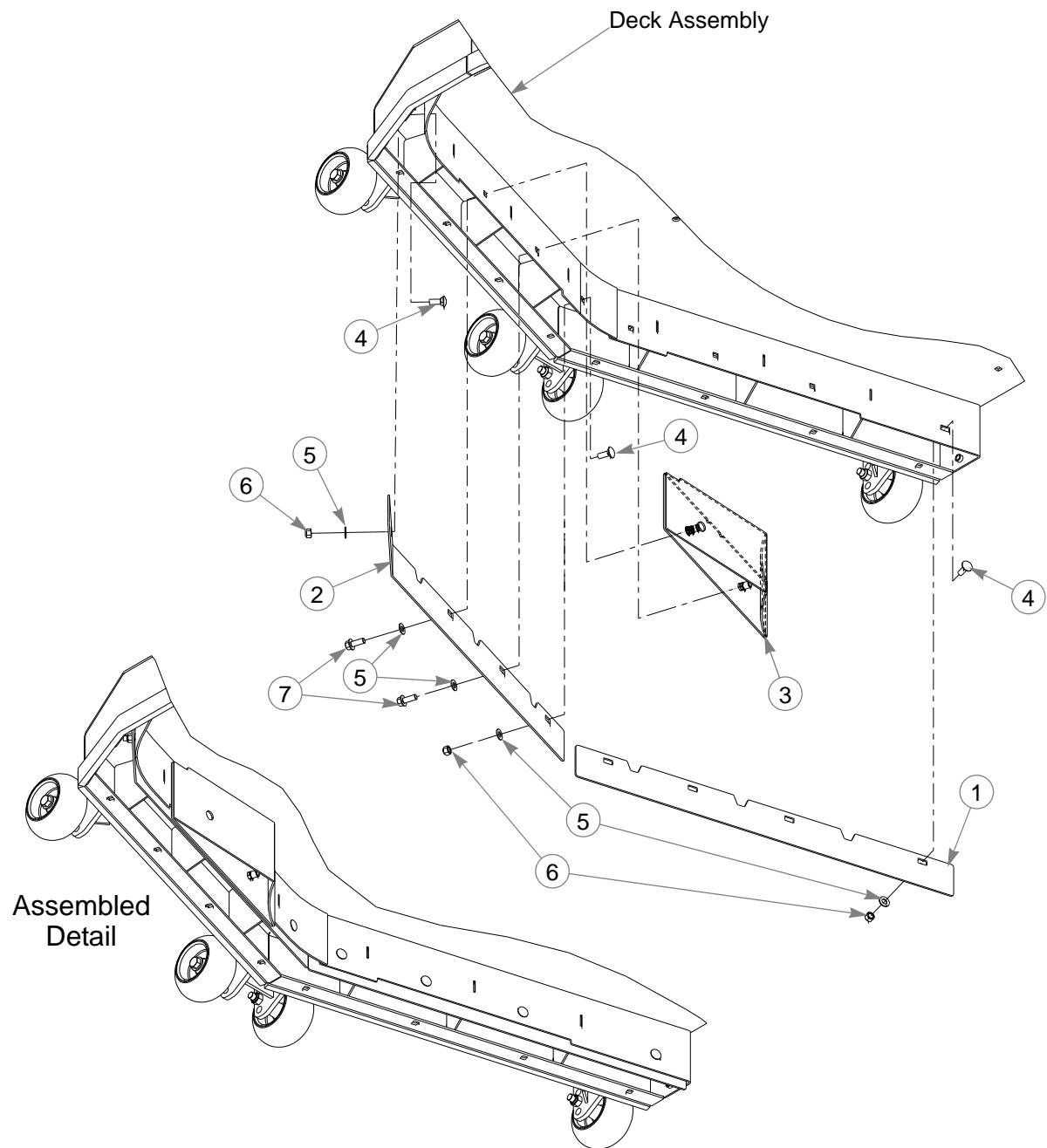
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ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	108531	108531	2	AIR FLOW FLOOR (66" DECKS)
	108516	108516	2	AIR FLOW FLOOR (60" DECKS)
	108619	108619	2	AIR FLOW FLOOR (54" DECKS)
2	025395	025395	4	CB .375-16X 1.00 STD CD
3	767954	767954	4	FW .406X .812 X.060 SAE
4	086660	086660	4	NT .375-16 HXZY NL

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**NOTES:**

## **Side Discharge Deck—"B" Adaptors**



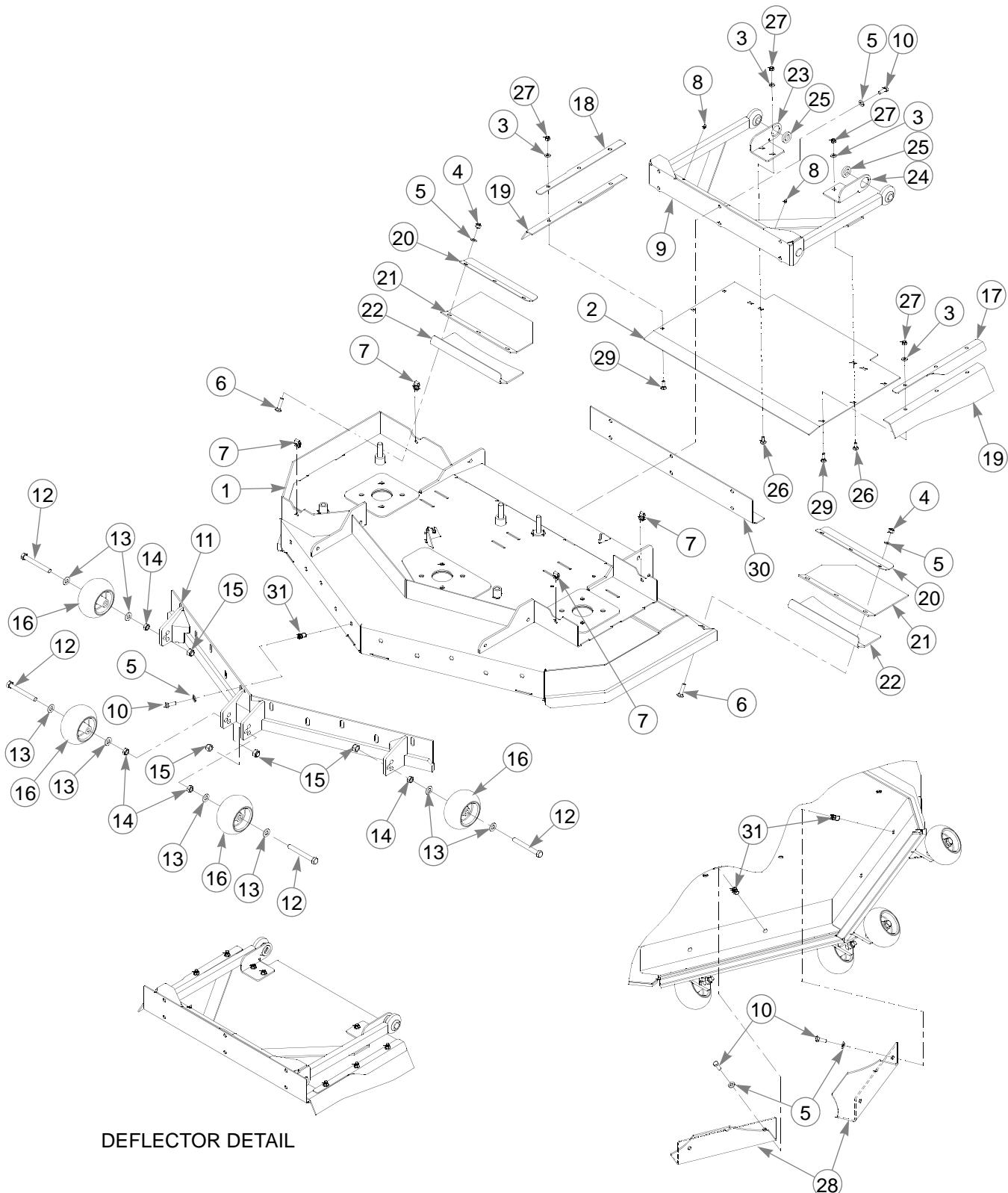
## **Side Discharge Deck—"B" Adaptors**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	108533	108533	1	AIR FLOW BAFFLE, "B" RIGHT SIDE (66" DECKS)
	108518	108518	1	AIR FLOW BAFFLE, "B" RIGHT SIDE (60" DECKS)
	108621	108621	1	AIR FLOW BAFFLE, "B" RIGHT SIDE (54" DECKS)
2	108532	108532	1	AIR FLOW BAFFLE, "B" LEFT SIDE (66" DECKS)
	108517	108517	1	AIR FLOW BAFFLE, "B" LEFT SIDE (60" DECKS)
3	108620	108620	1	AIR FLOW BAFFLE, "B" LEFT SIDE (54" DECKS)
	108221	108215	1	AIR LIFT DEFLECTOR (66" DECKS)
	108212	108013	1	AIR LIFT DEFLECTOR (60" DECKS)
4	108254	108256	1	AIR LIFT DEFLECTOR (54" DECKS)
	025395	025395	6	CB .375-16X 1.00 STD CD
	767954	767954	8	FW .406 X .812 X .060 SAE HD ZN
	086660	086660	6	NT .375-16 HXZY NL
7	029751	029751	2	CS .375-16X1.000 HXFLK

### **NOTES:**

1. Service part includes rivet nuts.

# 54" Rear Discharge Deck Assy—S/N 08100000 & Higher



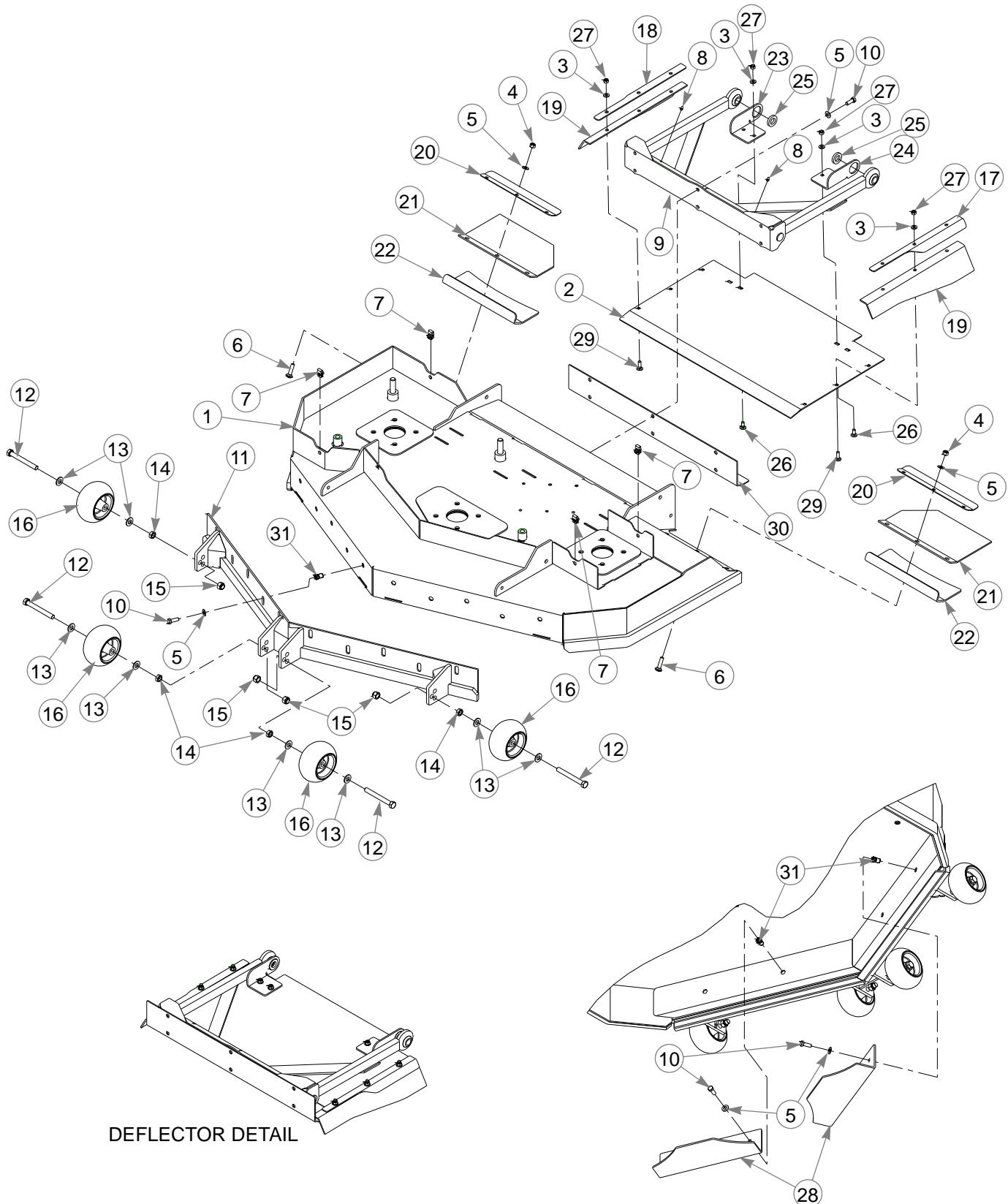
## **54" Rear Discharge Deck Assy—S/N 08100000 & Higher**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
3 1	549733	110441	1	54" REAR DISCHARGE DECK W/A
2	109490	109490	1	DISCHARGE SHIELD
3	768523	768523	10	FW .343 X .687 X .051/.080 HD ZN
4	086660	086660	6	NT .375-16 HX LK NY
5	767954	767954	26	FW .406 X .812 X .060 SAE HD ZN
6	710194	710194	6	CB .375-16X 1.50 STD G5
7	601069	601069	4	CN .312-18X.200 MAX THK
8	015495	015495	2	STRAIGHT GREASE FITTING
9	349803	349803	1	PUSHER
10	036244	036244	20	CS .375-16 X 1.00 HX G5 ZN
11	107975	107975	1	54" REAR DISCHARGE FRONT ANGLE
12	781708	N/A	4	CS .500-13 X 4.25 HX G5 ZN
13	767962	N/A	8	FW .531 X 1.063 X.090 SAE HD ZN
14	053199	N/A	4	NT .500-13 HX JAM ZN
15	781567	781567	4	NT .50-13 HXZY NL
16	031997	N/A	4	ANTI-SCALP WHEEL
17	109486	109486	1	CLAMP ANGLE LS
18	109487	109487	1	CLAMP ANGLE RS
19	601483	601483	2	RD SIDE FLAP
20	107972	107972	2	ANGLE RD DISCHARGE FLAP
21	601017	601017	2	RD REAR FLAP
22	107973	107973	2	ANGLE DECK STIFFENER
23	109482	109482	1	CHUTE BRACKET RS
24	109483	109483	1	CHUTE BRACKET LS
25	778399	778399	2	FW .781 X 1.375 X .250 ZNYC
26	016253	016253	4	CB .312-18 X .750 FUL ZN
27	058776	058776	10	NT .312-18 HXZY NL
28	107978	107978	2	AIR FLOW BAFFLE
29	037887	037887	6	CB .312-18X 1.000 FUL Z
30	109491	109491	1	SHIELD MTG ANGLE
31	600994	600994	14	RIVET NUT, 3/8-16 THREAD
1 2	788166	788166	4	ANTI SCALP WHEEL ASSEMBLY

### **NOTES:**

1. Factory assembled in top hole for shipping purposes.
2. Includes Items 12 through 14 and 16.
3. Service part deck includes decals, see "54" Rear Discharge Deck Decals" on page 9-7.

# 54" Rear Discharge Deck Assy—S/N 08010000—08100000



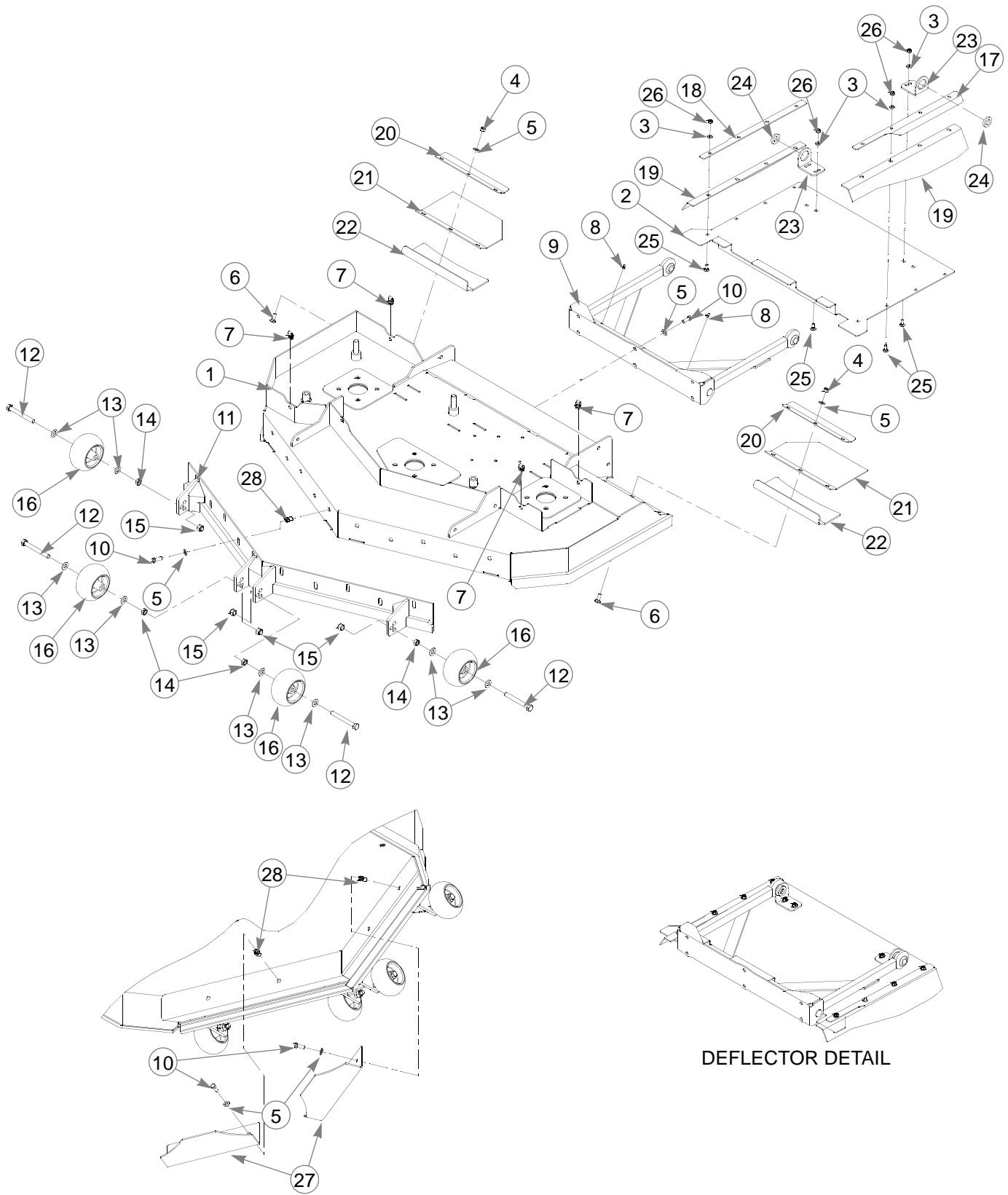
# **54" Rear Discharge Deck Assy—S/N 08010000—08100000**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
2	1	548644	107933	1 54" REAR DISCHARGE DECK W/A
	2	109490	109490	1 DISCHARGE SHIELD
	3	768523	768523	10 FW .343 X .687 X .051/.080 HD ZN
	4	086660	086660	6 NT .375-16 HX LK NY
	5	767954	767954	26 FW .406 X .812 X .060 SAE HD ZN
	6	710194	710194	6 CB .375-16X 1.50 STD G5
	7	601069	601069	4 CN .312-18X.200 MAX THK
	8	015495	015495	2 STRAIGHT GREASE FITTING
	9	349803	349803	1 PUSHER
	10	036244	036244	20 CS .375-16 X 1.00 HX G5 ZN
	11	107975	107975	1 54" REAR DISCHARGE FRONT ANGLE
	12	781708	N/A	4 CS .500-13 X 4.25 HX G5 ZN
	13	767962	N/A	8 FW .531 X 1.063 X.090 SAE HD ZN
	14	053199	N/A	4 NT .500-13 HX JAM ZN
	15	781567	781567	4 NT .50-13 HXZY NL
	16	031997	N/A	4 ANTI-SCALP WHEEL
	17	109486	109486	1 CLAMP ANGLE LS
	18	109487	109487	1 CLAMP ANGLE RS
	19	601483	601483	2 RD SIDE FLAP
	20	107972	107972	2 ANGLE RD DISCHARGE FLAP
	21	601017	601017	2 RD REAR FLAP
	22	107973	107973	2 ANGLE DECK STIFFENER
	23	109482	109482	1 CHUTE BRACKET RS
	24	109483	109483	1 CHUTE BRACKET LS
	25	778399	778399	2 FW .781 X 1.375 X .250 ZNYC
	26	016253	016253	4 CB .312-18 X .750 FUL ZN
	27	058776	058776	10 NT .312-18 HXZY NL
	28	107978	107978	2 AIR FLOW BAFFLE
	29	037887	037887	6 CB .312-18X 1.000 FUL Z
	30	109491	109491	1 SHIELD MTG ANGLE
	31	600994	600994	14 RIVET NUT, 3/8-16 THREAD
1		788166	788166	4 ANTI SCALP WHEEL ASSEMBLY

## **NOTES:**

1. Includes Items 12 through 14 and 16.
2. Service part deck includes decals, see "54" Rear Discharge Deck Decals" on page 9-7.

## ***54" Rear Discharge Deck Assy-S/N Prior to 08010000***



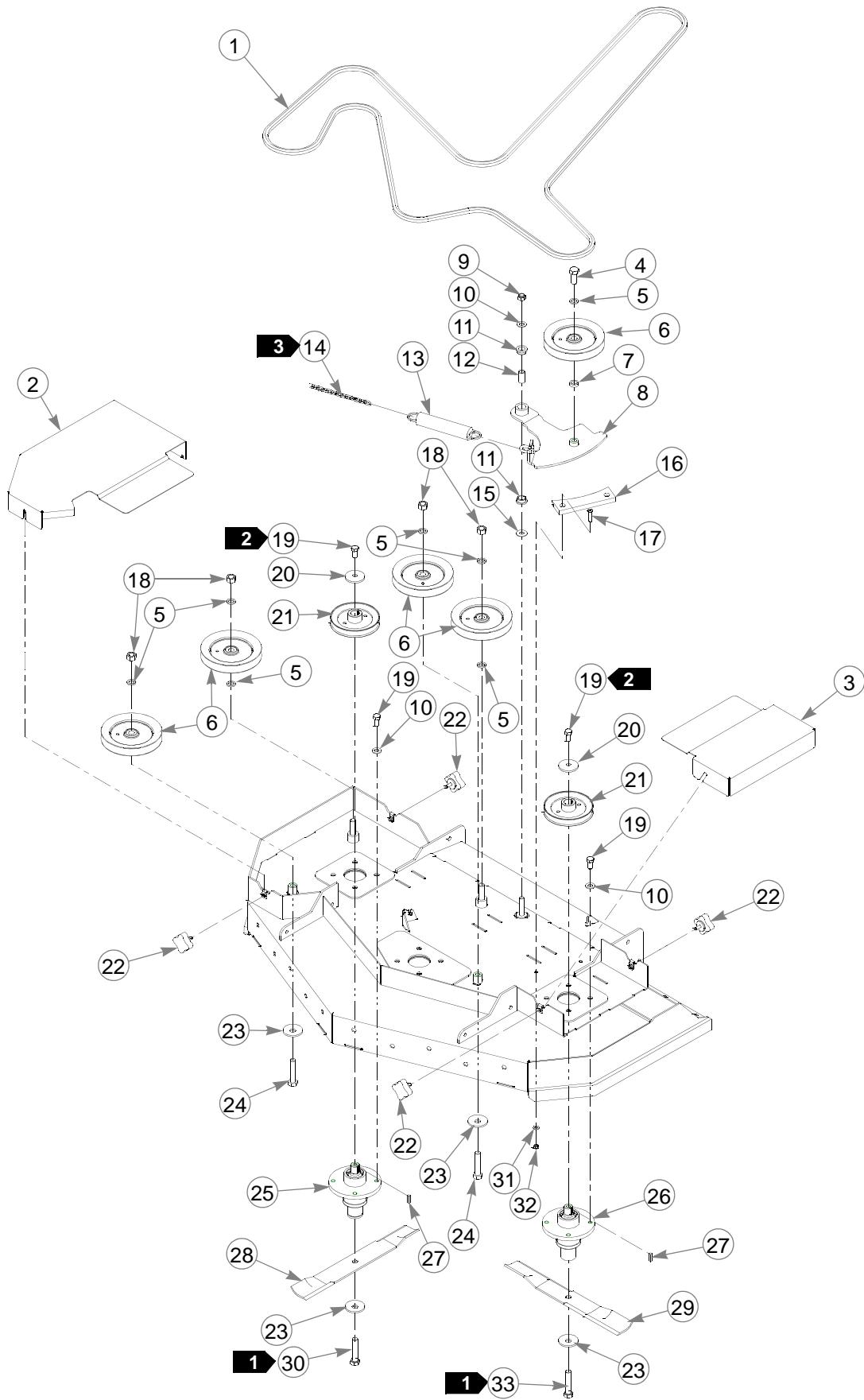
## ***54" Rear Discharge Deck Assy-S/N Prior to 08010000***

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
2	1	548644	107933	1 54" REAR DISCHARGE DECK W/A
	2	108066	108066	1 RD DECK GUARD
	3	768523	768523	12 FW .343 X .687 X .051/.080 HD ZN
	4	086660	086660	6 NT .375-16 HX LK NY
	5	767954	767954	26 FW .406 X .812 X .060 SAE HD ZN
	6	025395	025395	12 CB .375-16 X 1.00 STD CD
	7	601069	601069	4 CN .312-18X.200 MAX THK
	8	015495	015495	2 STRAIGHT GREASE FITTING
	9	349803	349803	1 PUSHER
	10	036244	036244	20 CS .375-16 X 1.00 HX G5 ZN
	11	107975	107975	1 54" REAR DISCHARGE FRONT ANGLE
	12	781708	N/A	4 CS .500-13 X 4.25 HX G5 ZN
	13	767962	N/A	8 FW .531 X 1.063 X.090 SAE HD ZN
	14	053199	N/A	4 NT .500-13 HX JAM ZN
	15	781567	781567	4 NT .50-13 HXZY NL
	16	031997	N/A	4 ANTI-SCALP WHEEL
	17	106724	106724	1 RD DEFLECTOR CLAMP LS ANGLE
	18	106666	106666	1 RD DEFLECTOR CLAMP RS ANGLE
	19	601113	601113	2 RD SIDE FLAP
	20	107972	107972	2 ANGLE RD DISCHARGE FLAP
	21	601017	601017	2 RD REAR FLAP
	22	107973	107973	2 ANGLE DECK STIFFENER
	23	106591	106591	2 RD DECK GUARD BRACKET
	24	778399	778399	2 FW .781 X 1.375 X .250 ZNYC
	25	016253	016253	12 CB .312-18 X .750 FUL ZN
	26	058776	058776	12 NT .312-18 HXZY NL
	27	107978	107978	2 AIR FLOW BAFFLE
	28	600994	600994	14 RIVET NUT, 3/8-16 THREAD
1	788166	788166	4	ANTI SCALP WHEEL ASSEMBLY

### **NOTES:**

1. Includes Items 12 through 14 and 16.
2. Service part deck includes decals, see "54" Rear Discharge Deck Decals" on page 9-7.

***54" Rear Discharge Deck Pulley Assy—S/N 0810000 & Higher***



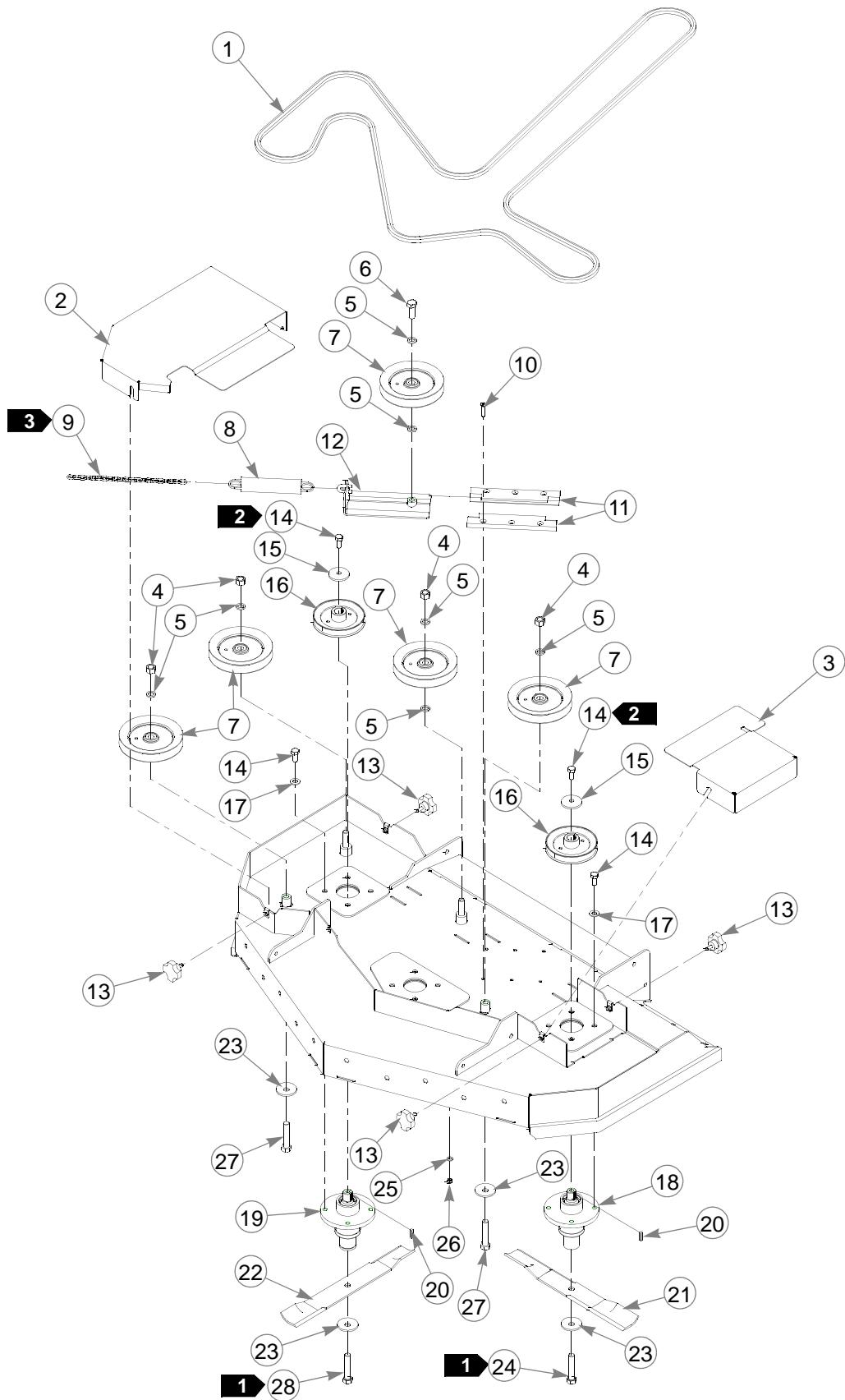
# **54" Rear Discharge Deck Pulley Assy—S/N 08100000 & Higher**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	601015	601015	1	54" REAR DISCHARGE DECK BELT
2	110449	110449	1	RIGHT 54" REAR DISCHARGE PULLEY COVER
3	110448	110448	1	LEFT 54" REAR DISCHARGE PULLEY COVER
4	794446	794446	1	CS .625-11 X 1.500 HX G5
5	028118	028118	7	FW .62 X 1.00 X .134 ZN
6	796714	796714	5	6" HB IDLER PULLEY RD
7	600296	600296	1	DECK IDLER SPACER
8	109948	109948	1	IDLER ARM W/A
9	781567	781567	1	NT .500-13 HX G8 ZY NL
10	767962	767962	13	FW .531 X 1.063 X .090 SAE HD ZN
11	770867	770867	2	PLASTIC BUSHING .750X1(FS)
12	109549	109549	1	IDLER PIVOT BUSHING
13	781302	781302	1	IDLER SPRING
14	259812	259812	1	CHAIN DECK LIFT SPRING
15	704759	704759	1	FW .500X 1.250X.075 ZNY
16	601779	601779	1	IDLER GUIDE UHMW
17	797910	797910	2	CS .312-18X1.50FLT SH ZY
18	016972	016972	4	NT .625-11 HX G5 ZNYC
19	016527	016527	15	CS .500-13 X 1.00 HX G5 ZN
20	752386	752386	3	CW .515X 2.25X .204 ZN
21	798967	798967	3	B-SECTION PULLEY 5.44 EOD
22	792002	792002	4	5/16-18 X 3/4" MALE KNOB
23	782474	782474	5	CW .631 X 2.250 X .187 PNT
24	783738	783738	2	CS .625-11X3.00 FULL HX G5 ZN
25	796680X	796680	1	REAR DISCHARGE DECK SPINDLE ASSEMBLY
26	796235X	796235	2	DECK SPINDLE ASSY
27	212472	212472	3	KEY 1/4 SQ X 1.00 LONG
28	601013	601013	1	BLADE, F18.50-L-F-CCW
29	601012	601012	2	BLADE F18.50"-L-F-CW
30	796722	796722	1	CS .625-11 X 3.00 LH HX G
31	768523	768523	1	FW .343 X .687 X .051/.080 HD ZN
32	058776	058776	1	NT .312-18 HXZY NL
33	029934	029934	2	CS .625-11 X 3.00 HX G5 ZNYC

## **NOTES:**

1. Torque to 118 ft. lbs.
2. Torque to 65-75 ft. lbs.
3. See "54" Rear Discharge Deck Belt Routing and Tensioning" on page 8-6 for belt tensioning.
4. See "Spindle Assembly—796680" on page 7-29 for breakdown.
5. See "Spindle Assembly—796235" on page 7-28 for breakdown.

## ***54" Rear Discharge Deck Pulley Assy—S/N Prior to 08100000***



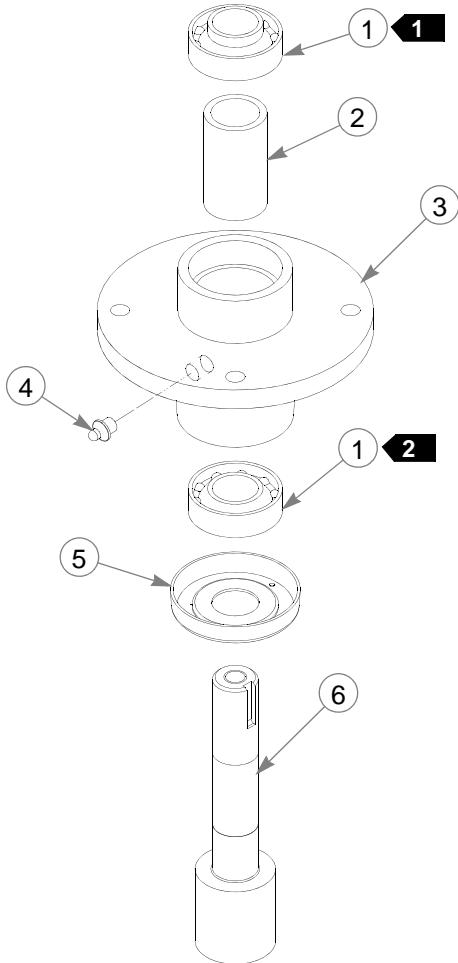
## **54" Rear Discharge Deck Pulley Assy—S/N Prior to 08100000**

ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	601015	601015	1	54" REAR DISCHARGE DECK BELT
2	107945	107945	1	RIGHT 54" REAR DISCHARGE PULLEY COVER
3	107946	107946	1	LEFT 54" REAR DISCHARGE PULLEY COVER
4	016972	016972	4	NT .625-11 HX G5 ZNYC
5	028118	028118	7	FW .62 X 1.00 X .134 ZN
6	794446	794446	1	CS .625-11 X 1.500 HX G5
7	796714	796714	5	6" HB IDLER PULLEY RD
8	781302	781302	1	IDLER SPRING
9	373191	059931	1	SIDE MOUNT CHAIN (21 LINKS)
10	797910	797910	6	CS .312-18 X 1.250 FLT SH ZNYC
11	601434	601434	2	UHMW IDLER SLIDE
12	350884	350884	1	REAR DISCHARGE DECK IDLER
13	792002	792002	4	5/16-18 X 3/4" MALE KNOB
14	016527	016527	15	CS .500-13 X 1.00 HX G5 ZN
15	752386	752386	3	FW .510 X 1.75 X .18 ZN
16	798967	798967	3	B-SECTION 6.10 PULLEY
17	767962	767962	12	FW .531 X 1.063 X .090 SAE HD ZN
<b>4</b> 18	796235X	796235	2	DECK SPINDLE ASSY
<b>5</b> 19	796680X	796680	1	REAR DISCHARGE DECK SPINDLE ASSEMBLY
20	212472	212472	3	KEY 1/4 SQ X 1.00 LONG
21	601012	601012	2	BLADE F18.50"-L-F-CW
22	601013	601013	1	BLADE, F18.50-L-F-CCW
23	782474	782474	5	CW .631 X 2.250 X .187 PNT
24	029934	029934	2	CS .625-11 X 3.00 HX G5 ZNYC
25	768523	768523	4	FW .343 X .687 X .051/.080 HD ZN
26	058776	058776	4	NT .312-18 HXZY NL
27	783738	783738	2	CS .625-11X3.00 FULL HX G5 ZN
28	796722	796722	1	CS .625-11 X 3.00 LH HX G

### **NOTES:**

1. Torque to 118 ft. lbs.
2. Torque to 65-75 ft. lbs.
3. See "54" Rear Discharge Deck Belt Routing and Tensioning" on page 8-6 for belt tensioning.
4. See "Spindle Assembly—796235" on page 7-28 for breakdown.
5. See "Spindle Assembly—796680" on page 7-29 for breakdown.
6. Item 11 (601434) replaces idler slide components 600171, 600189, and 786335 found on tractors with serial numbers prior to 08010000.

## Spindle Assembly-796235

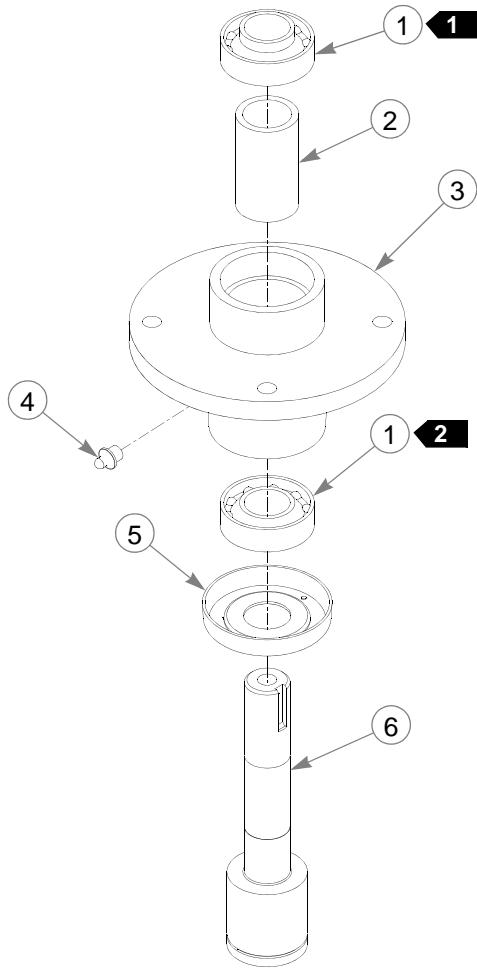


ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	077123	N/A	2	BEARING W/O COLLAR
2	766204	N/A	1	BLADE SPINDLE BUSHING
3	034843	N/A	1	CAST SPINDLE HOUSING
4	012005	N/A	1	GREASE FITTING
5	600893	N/A	1	BEARING DUST COVER
6	796227	N/A	1	SADDLELESS SPINDLE SHAFT

### NOTES:

1. Install upper bearing with extended inner race up.
2. Install lower bearing with extended inner race down.
3. Apply grease to zerk.

## Spindle Assembly-796680



ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	077123	N/A	2	BEARING W/O COLLAR
2	766204	N/A	1	BLADE SPINDLE BUSHING
3	034843	N/A	1	CAST SPINDLE HOUSING
4	012005	N/A	1	GREASE FITTING
5	600893	N/A	1	BEARING DUST COVER
6	796698	N/A	1	SPINDLE SHAFT

### NOTES:

1. Install upper bearing with extended inner race up.
2. Install lower bearing with extended inner race down.
3. Apply grease to zerk.

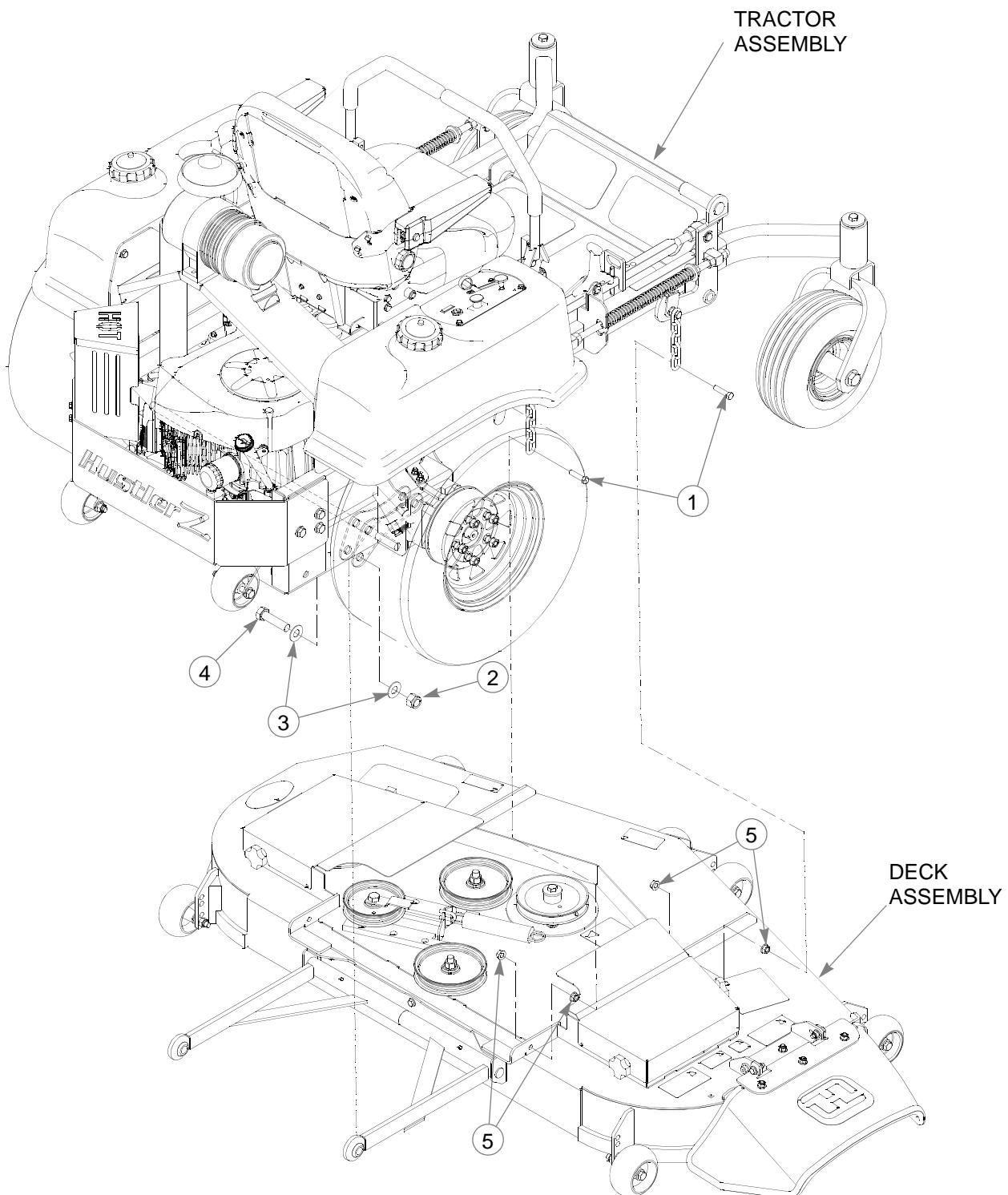


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## ***Deck Installation***



## **Deck Installation**

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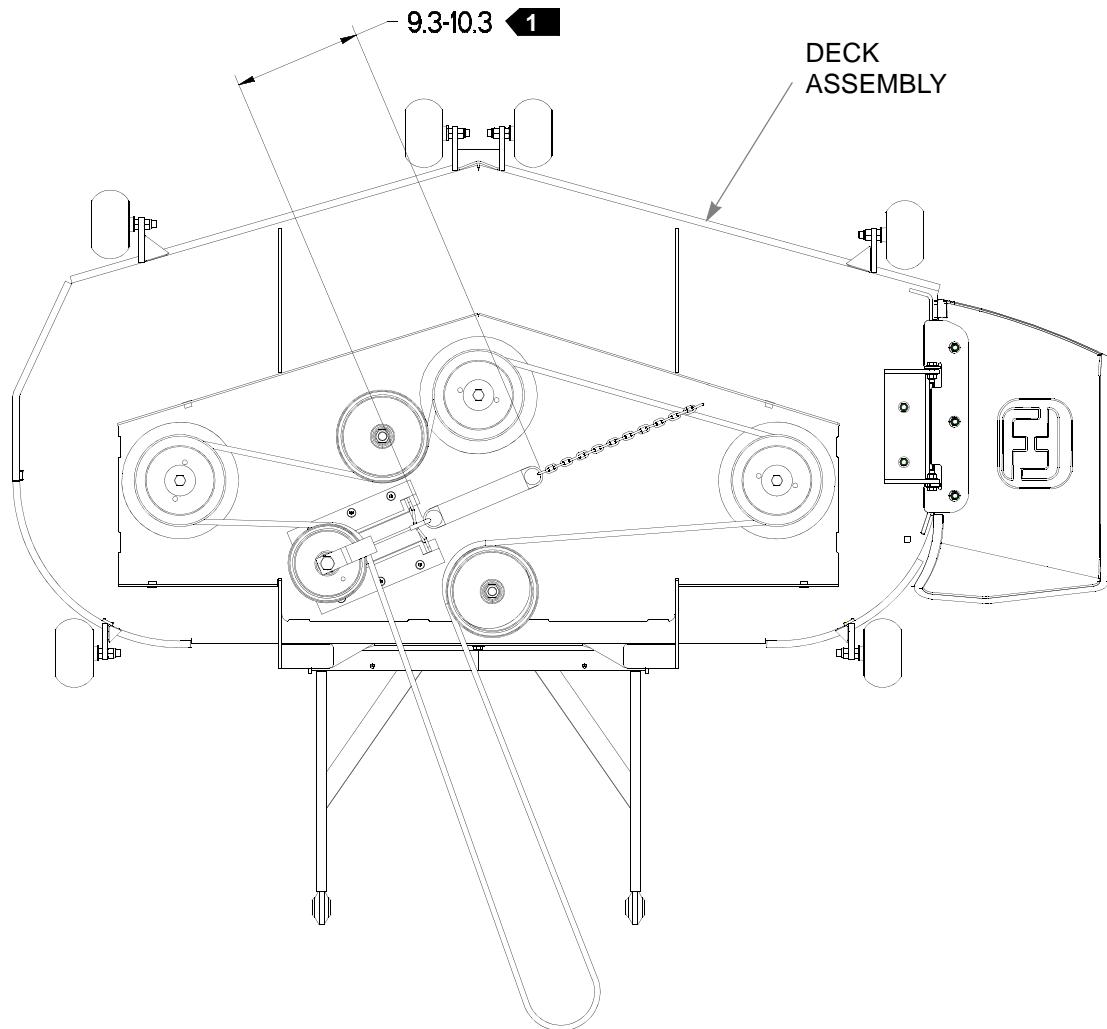
ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	055749	055749	4	CS .437-14 X 1.750 HX G5 ZN
2	061101	061101	2	NT .750-10 HX NL ZN
3	025296	025296	4	FW .760 X 1.625 X.08 ZN
4	051169	051169	2	CS .750-10 X 3.000 HX G5 ZN
5	704643	704643	8	NT .437-14 HX FLG ZN

---

### **NOTES:**

1. 66" Deck installation is shown, 60" and 54" Side Discharge Decks, and 54" Rear Discharge Decks are similar.

## **66" & 54" Side Discharge Deck Belt Routing and Tensioning**



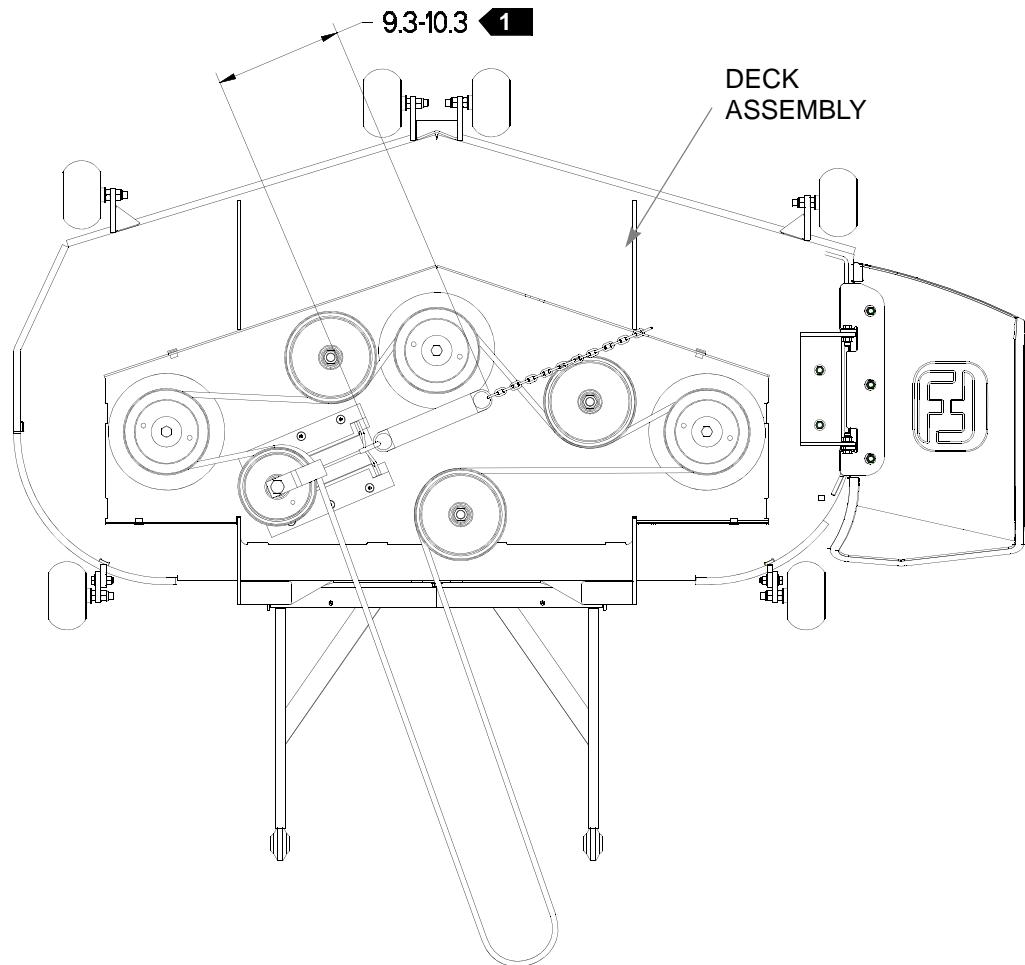
### **NOTES:**

1. Spring length after tensioning belt. Measure spring from outside of hook to outside of hook.
2. Route belt as shown.

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## **60" Side Discharge Deck Belt Routing and Tensioning**

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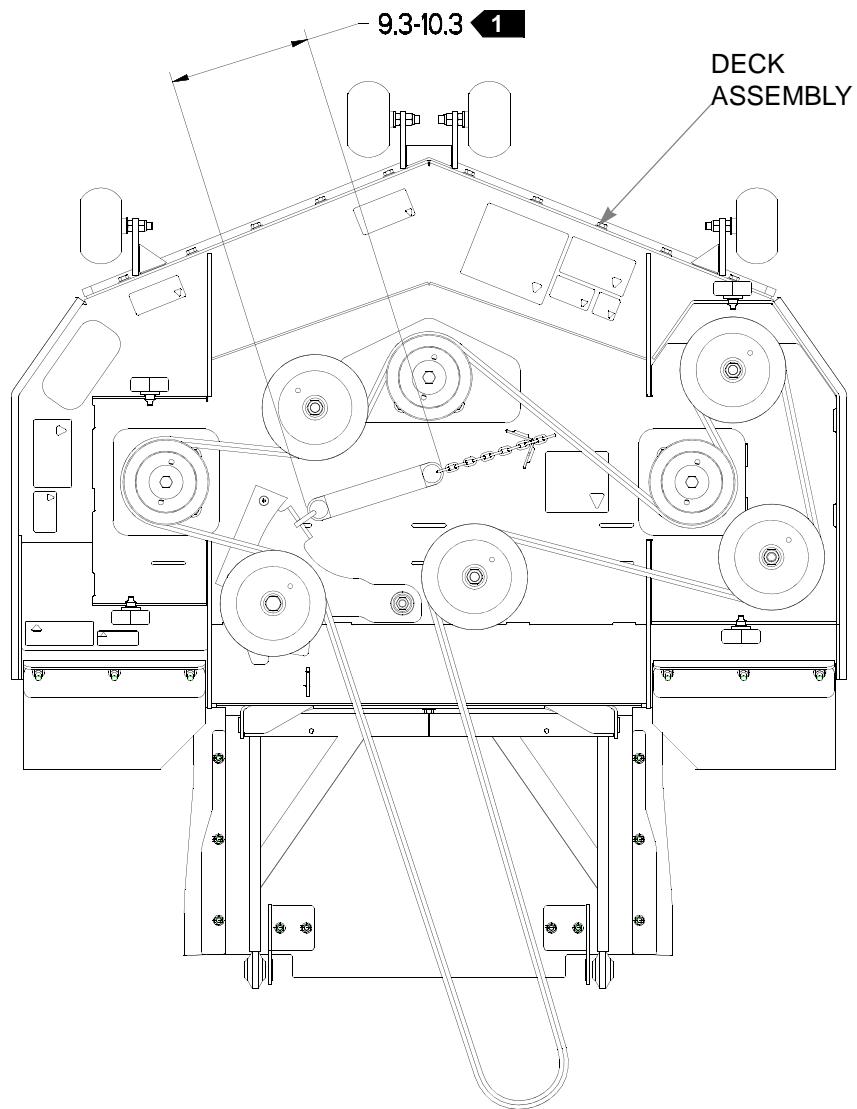


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### **NOTES:**

1. Spring length after tensioning belt. Measure spring from outside of hook to outside of hook.
2. Route belt as shown.

## **54" Rear Discharge Deck Belt Routing and Tensioning**



### **NOTES:**

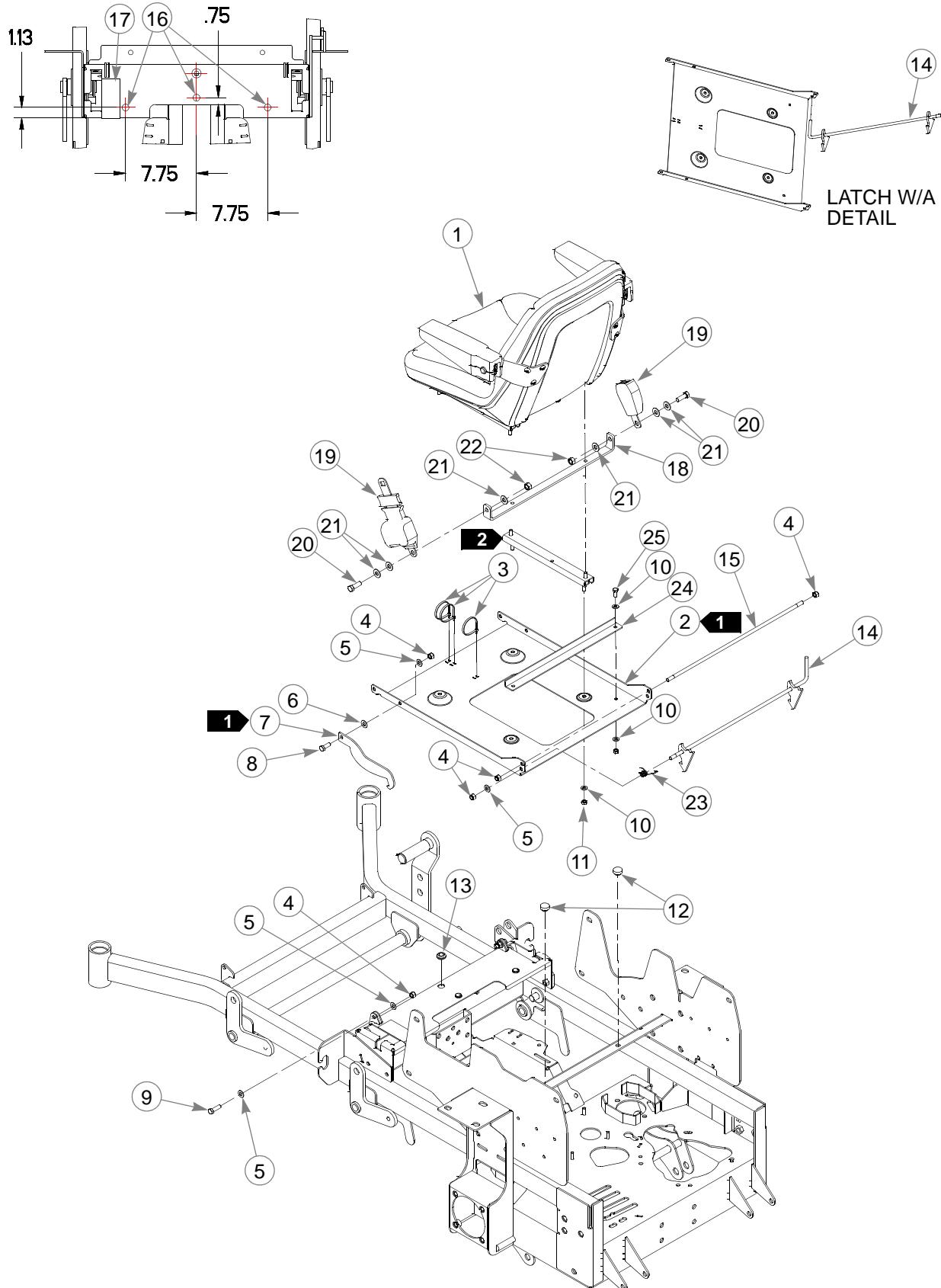
1. Spring length after tensioning belt. Measure spring from outside of hook to outside of hook.
2. Route belt as shown.

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## Seat Installation—S/N 08010000 & Higher



## **Seat Installation—S/N 08010000 & Higher**

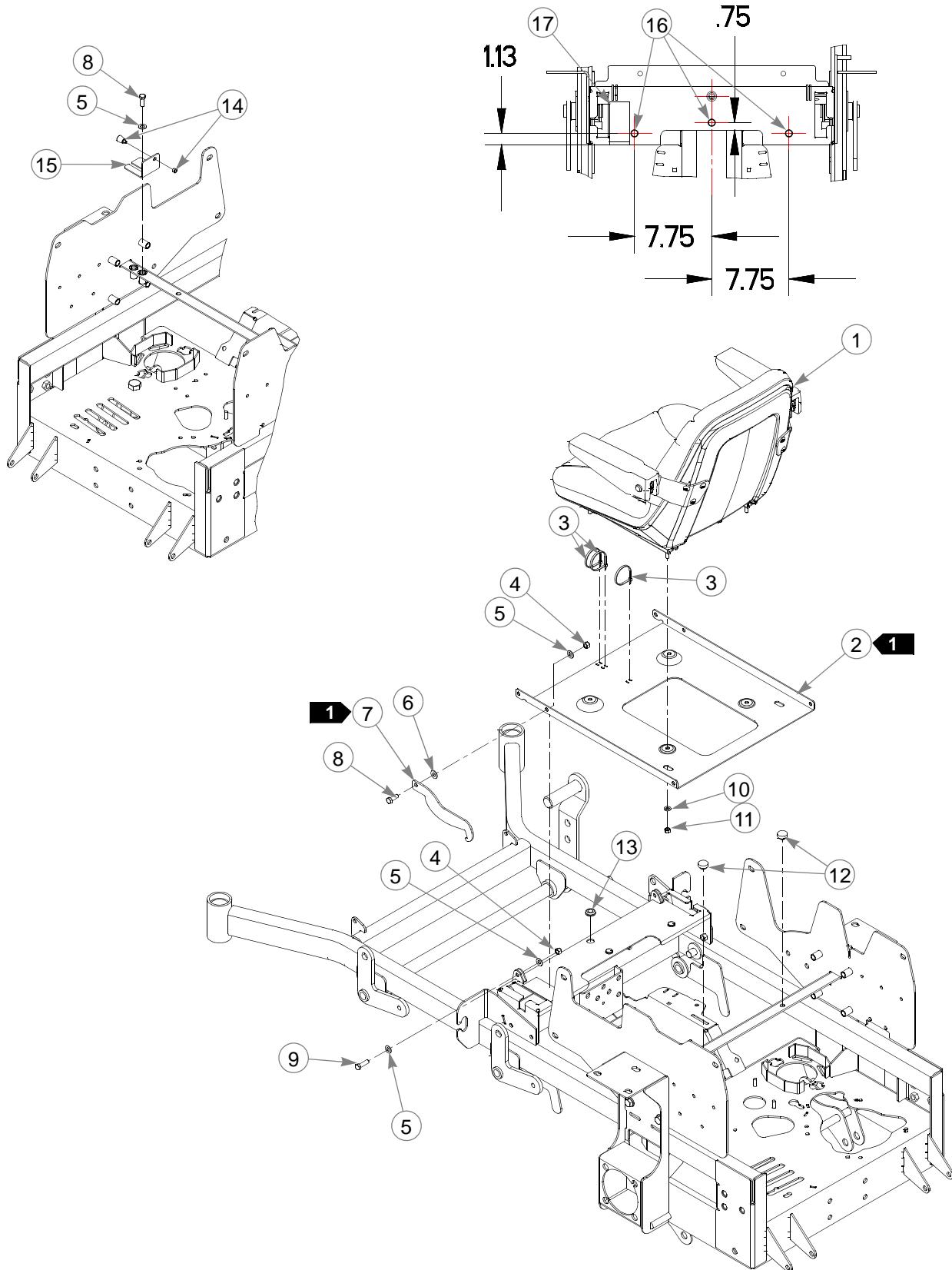
ITEM NO.	SERVICES PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	793661	793661	1	MICHIGAN SEAT
2	109307	109307	1	SEAT PAN
3	000331	000331	3	BLACK CABLE TIE
4	086660	086660	6	NT .375-16 HX LK NY
5	767954	767954	6	FW .406 X .812 X .060 SAE HD ZN
6	724716	724716	1	FIBER WASHER
7	350421	350421	1	SEAT PAN STOP
8	036244	036244	1	CS .375-16 X 1.000 HX G5 ZN
9	052860	052860	2	CS .375-16 X1.250 HX G5 ZN
10	768523	768523	8	FW .343 X .687 X .051/.080 HD ZN/Y
11	034272	034272	6	NT .312-18 HX G5 ZN
12	781880	781880	2	BUMPER
13	080358	080358	1	GM .50 X 1.00 X .75 X .12 GROMMET
14	109274	109274	1	LATCH W/A
15	109283	109283	1	STOP ROD SEAT LATCH
16	781617	781617	3	RUBBER BUMPER
17	722199	722199	1	2" WIDE SCOTCH POLYURETHANE 5.55" LONG
18	794610	794610	1	SEAT BELT CROSS BAR
19	601444	601444	1	SEAT BELT
20	754101	754101	2	CS .437-20X1.250 G5 ZNY
21	017129	017129	8	FW .440X 1.000X.083 ZNY
22	704635	704635	2	NT .437-20 HX GR5 ZNYC
23	783910	783910	1	ROPS LATCH TORSION SPRING
24	108851	108851	1	SEAT STOP
25	034280	034280	2	CS .312-18 X .750 HX G5

### **NOTES:**

1. Must pivot freely.
2. Part of seat.
3. Seat stop is used on mowers with 29 HP Kawasaki engines only.
4. Service parts available for Michigan Standard seat;

<u>PART NO.</u>	<u>DESCRIPTION</u>
793307	SLIDE KIT
793315	SEAT SWITCH
793331	ARMREST KIT (OPTIONAL SQUARE STYLE)
793349	L.H. ARMREST ASSMBLY (SQUARE STYLE W/ BRACKETS)
793356	R.H. ARMREST ASSMBLY (SQUARE STYLE W/ BRACKETS)
797456	ARMREST KIT (OPTIONAL ROUND STYLE)
767464	L.H. ARMREST ASSMBLY (ROUND STYLE W/ BRACKETS)
797472	R.H. ARMREST ASSMBLY (ROUND STYLE W/ BRACKETS)
797480	ONE ARMREST ONLY (ROUND STYLE W/O BRACKET)
793273	ARMREST STOP ASSY

## Seat Installation—S/N Prior to 08010000



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## ***Seat Installation—S/N Prior to 08010000***

ITEM NO.	SERVICES PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	793661	793661	1	MICHIGAN SEAT
2	350041	350041	1	SEAT PAN
3	000331	000331	3	BLACK CABLE TIE
4	086660	086660	3	NT .375-16 HX LK NY
5	767954	767954	7	FW .406 X .812 X .060 SAE HD ZN
6	724716	724716	1	FIBER WASHER
7	350421	350421	1	SEAT PAN STOP
8	036244	036244	3	CS .375-16 X 1.000 HX G5 ZN
9	052860	052860	2	CS .375-16 X1.250 HX G5 ZN
10	768523	768523	4	FW .343 X .687 X .051/.080 HD ZN/Y
11	034272	034272	4	NT .312-18 HX G5 ZN
12	781880	781880	2	BUMPER
13	080358	080358	1	GM .50 X 1.00 X .75 X .12 GROMMET
14	748756	748756	1	LATCH SPRING PLUNGER
15	350462	350462	1	SEAT LATCH BRACKET
16	781617	781617	3	RUBBER BUMPER
17	722199	722199	1	2" WIDE SCOTCH POLYURETHANE 5.55" LONG

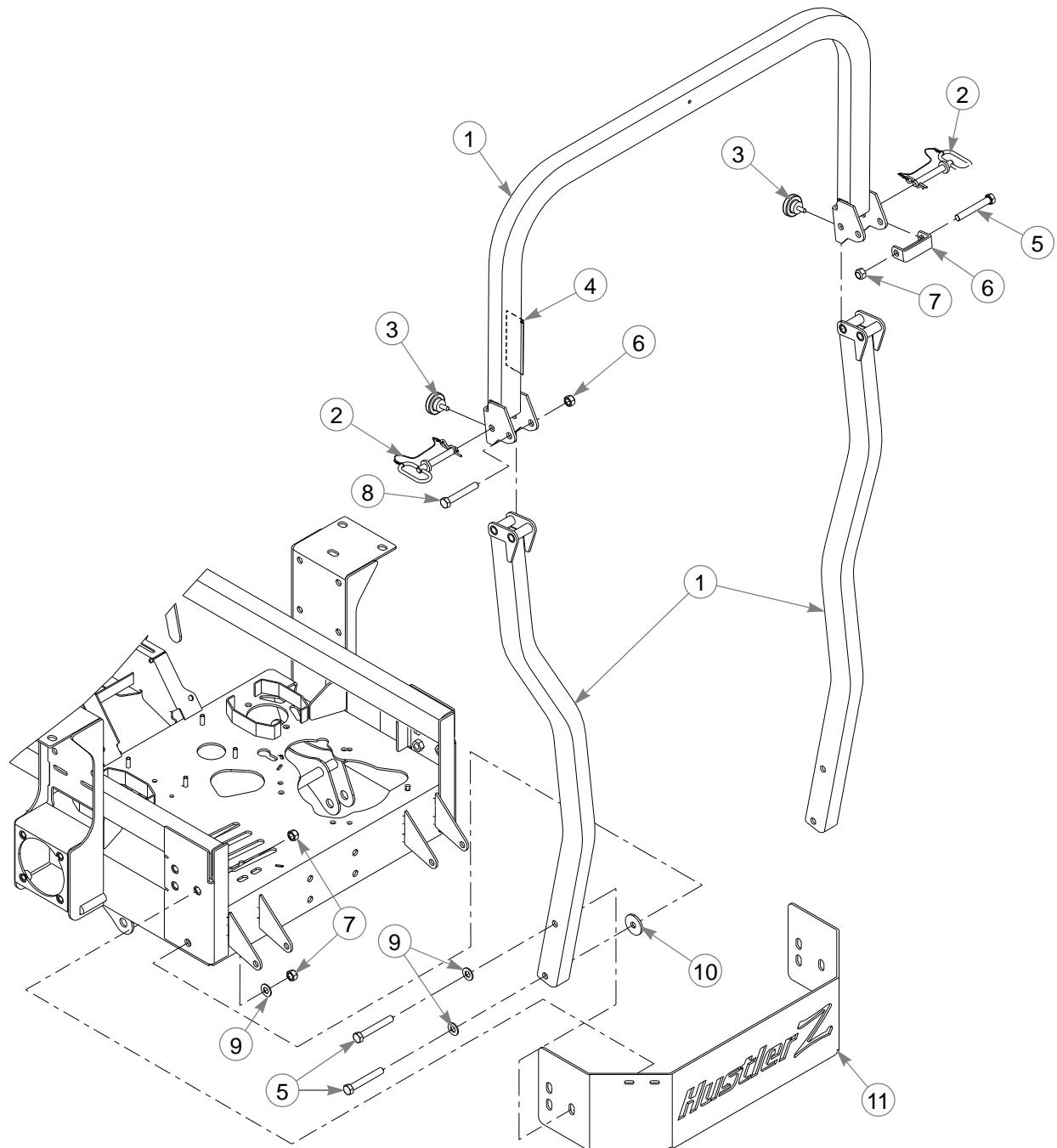
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### **NOTES:**

1. Must pivot freely.
2. Service parts available for Michigan Standard seat;

<u>PART NO.</u>	<u>DESCRIPTION</u>
793307	SLIDE KIT
793315	SEAT SWITCH
793331	ARMREST KIT (OPTIONAL SQUARE STYLE)
793349	L.H. ARMREST ASSMBLY (SQUARE STYLE W/ BRACKETS)
793356	R.H. ARMREST ASSMBLY (SQUARE STYLE W/ BRACKETS)
797456	ARMREST KIT (OPTIONAL ROUND STYLE)
767464	L.H. ARMREST ASSMBLY (ROUND STYLE W/ BRACKETS)
797472	R.H. ARMREST ASSMBLY (ROUND STYLE W/ BRACKETS)
797480	ONE ARMREST ONLY (ROUND STYLE W/O BRACKET)
793273	ARMREST STOP ASSY

## **ROPS Installation**



## ***ROPS Installation***

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ITEM NO.	SERVICES PART NO.	MFG. PART NO.	QTY	DESCRIPTION
1	601440	N/A	1	ROPS
2	601471	N/A	2	LYNCH PIN W/ LANYARD
3	601470	N/A	2	KNOB
4	601560	N/A	1	ROPS WARNING DECAL
5	061812	N/A	5	CS .500-13X3.500 HX G5
6	601472	N/A	1	ROPS STOP
7	023317	N/A	6	NT .500-13 UNT LK G5 ZN
8	077859	N/A	1	CS .500-13X3.250 HX G5
9	767962	N/A	4	FW .531X 1.063X.090 SAE
10	601473	N/A	2	SPACER WASHER
11	349704	N/A	1	ENGINE CAGE MOUNT PLATE

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### **NOTES:**

3. ROPS come standard on all Hustler Z units with serial numbers 08010000 and higher. Prior to this serial number, ROPS were optional for Hustler Z mowers.

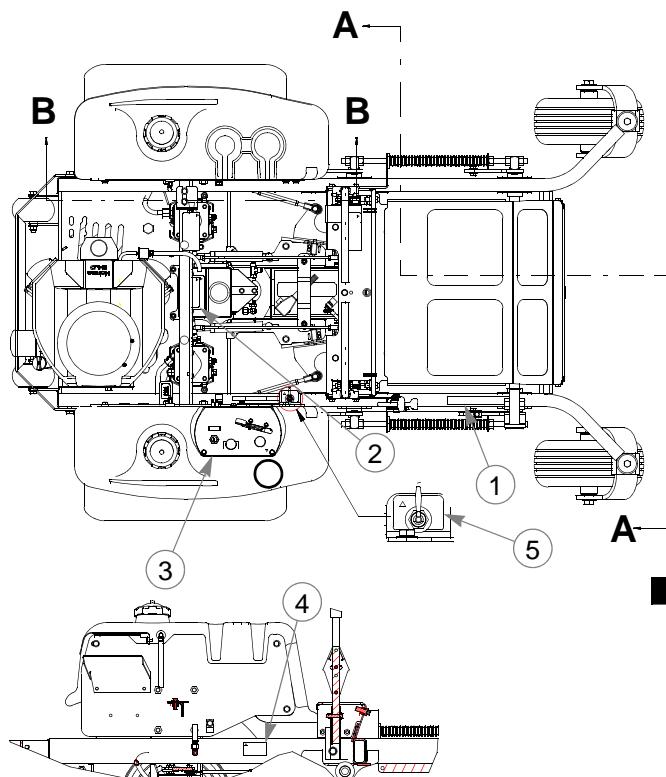


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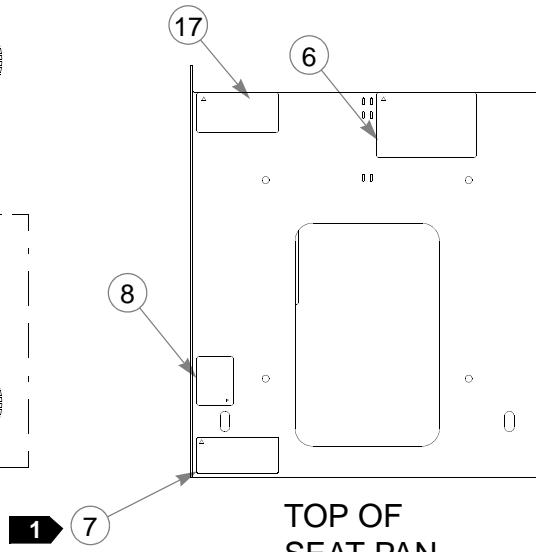
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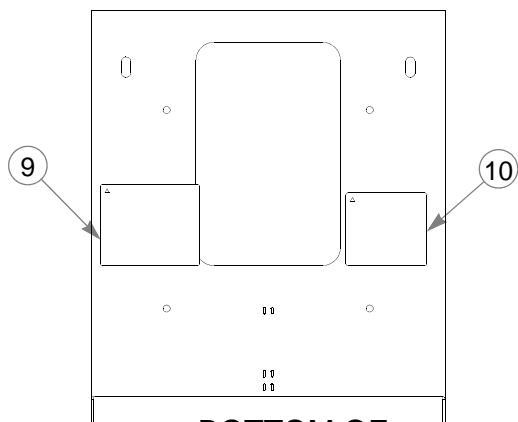
## Tractor Decals



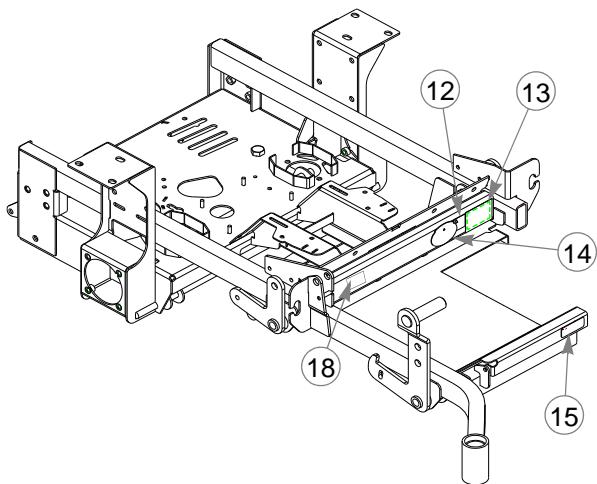
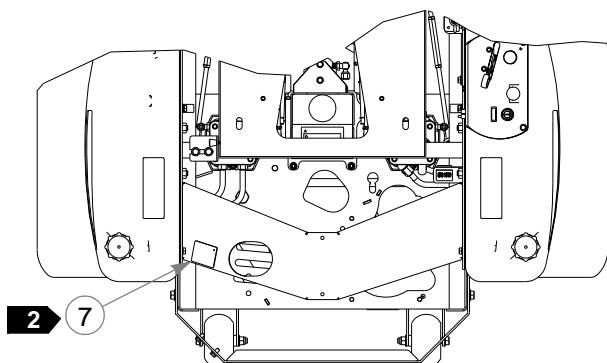
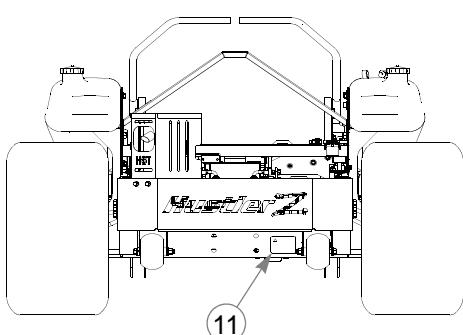
VIEW B-B



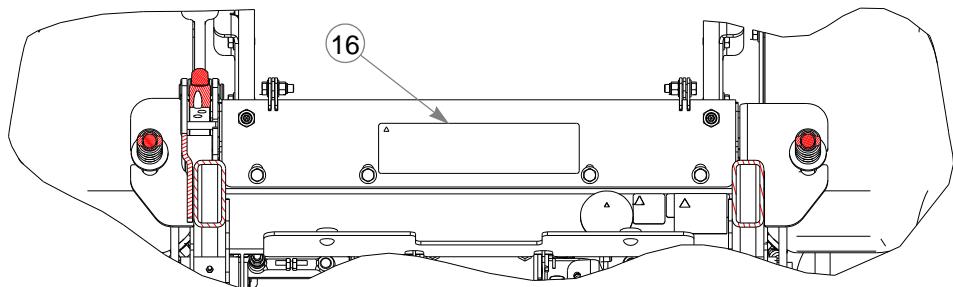
TOP OF  
SEAT PAN



BOTTOM OF  
SEAT PAN



## Tractor Decals

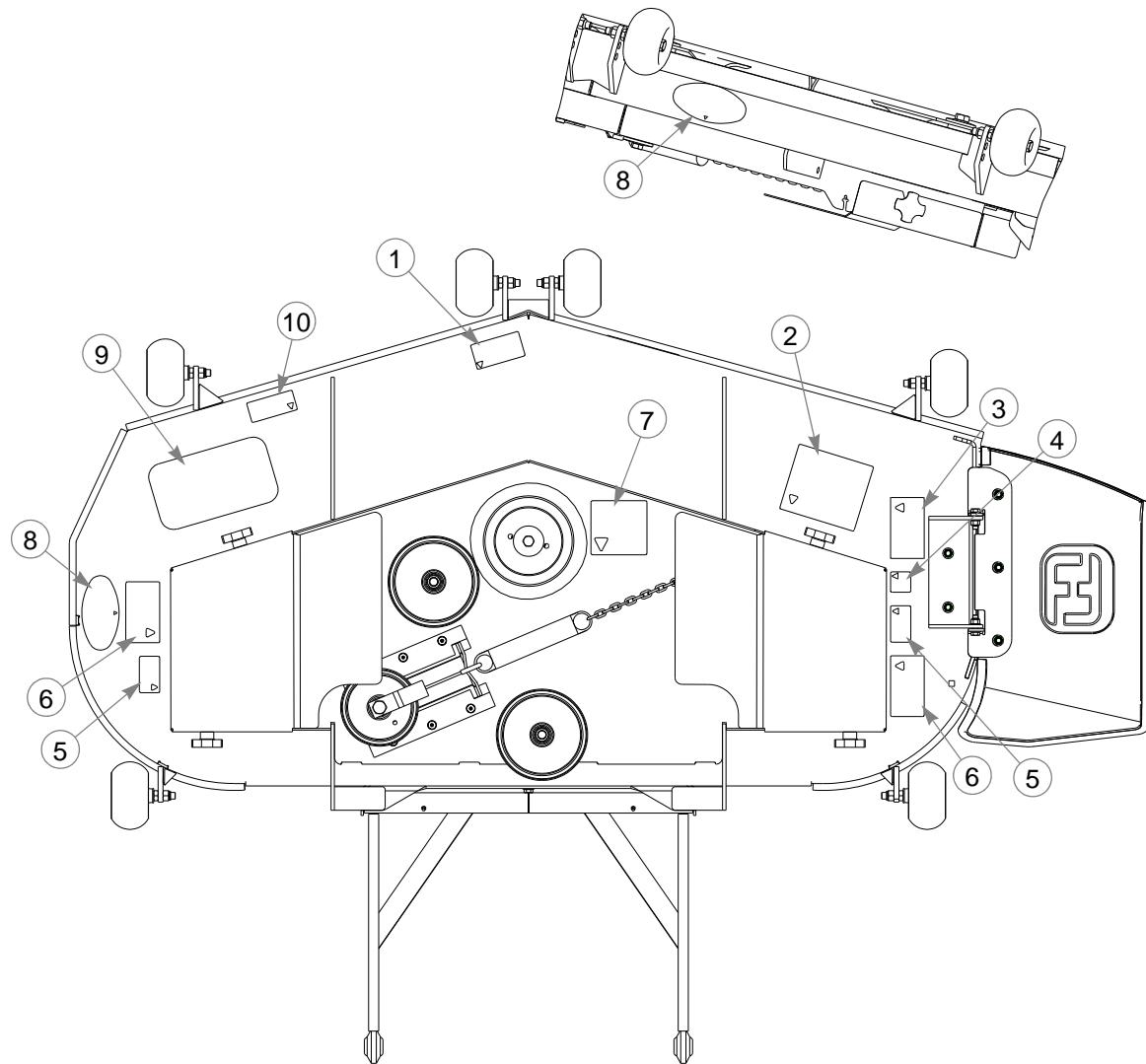


ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	781427	781427	1	DECK HEIGHT INDICATOR DECAL
2	779280	779280	1	HOT & HYDRAULIC OIL DECAL
3	784702	784702	1	INSTRUMENT PANEL DECAL (SEPARATE CHOKE)
	789503	789503	1	INSTRUMENT PANEL DECAL (LIQUID COOLED ONLY)
4	727008	727008	1	HYD PRESSURE DECAL
5	791830	791830	1	FUEL INDICATOR DECAL
6	782136	782136	1	Z OPERATION DECAL
7	788968	788968	1	ENGINE COMPARTMENT DECAL
8	785188	785188	1	Z ARMREST WARNING DECAL
9	782128	782128	1	Z SERVICE DECAL
10	727016	727016	1	BATTERY DECAL
11	771436	771436	1	STABILIZER DECAL
12	727172	727172	1	MADE IN USA DECAL
13	N/A	083279	1	TURF PROD SERIAL NO PLATE
14	782573	782573	1	FIRST ZERO TURN DECAL
15	793588	793588	1	HUSTLER NAME PLATE
16	786426	786426	1	HUSTLER Z ID DECAL
17	600899	600899	1	PUMP BELT WARNING DECAL
18	600941	600941	1	PATENTS DECAL

### NOTES:

1. Location for item 7 (788968-Engine Compartment Decal) for mowers with HD air cleaners only.
2. Location for item 7 (788968-Engine Compartment Decal) for all mowers except those with HD air cleaners.

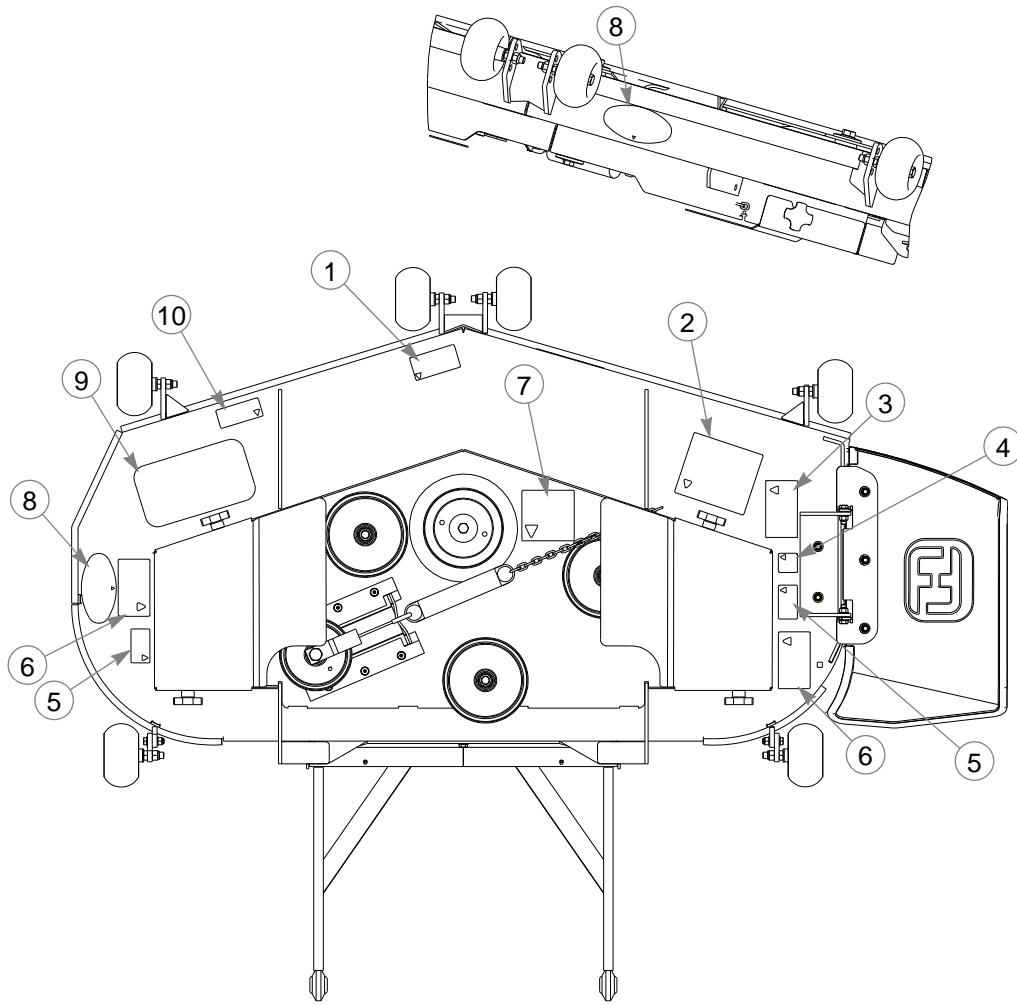
## **66" Side Discharge XR7 Deck Decals**



ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	799189	799189	1	66" SIDE DISCHARGE DECK ID DECAL
2	760637	760637	1	MOWER DECK QUICK REFERENCE DECAL
3	727420	727420	1	DEFLECTOR SHIELD DECAL
4	727172	727172	1	"MADE IN U.S.A." DECAL
5	727453	727453	2	BELT & PULLEY DECAL
6	727438	727438	2	WHIRLING BLADES DECAL
7	781419	781419	1	BELT ROUTING DECAL
8	799353	799353	2	DECK XR7 ID DECAL
9	359547	359547	1	5.00 X 9.00 STEP TREAD
10	797845	797845	1	FUSION DECAL

### **NOTES:**

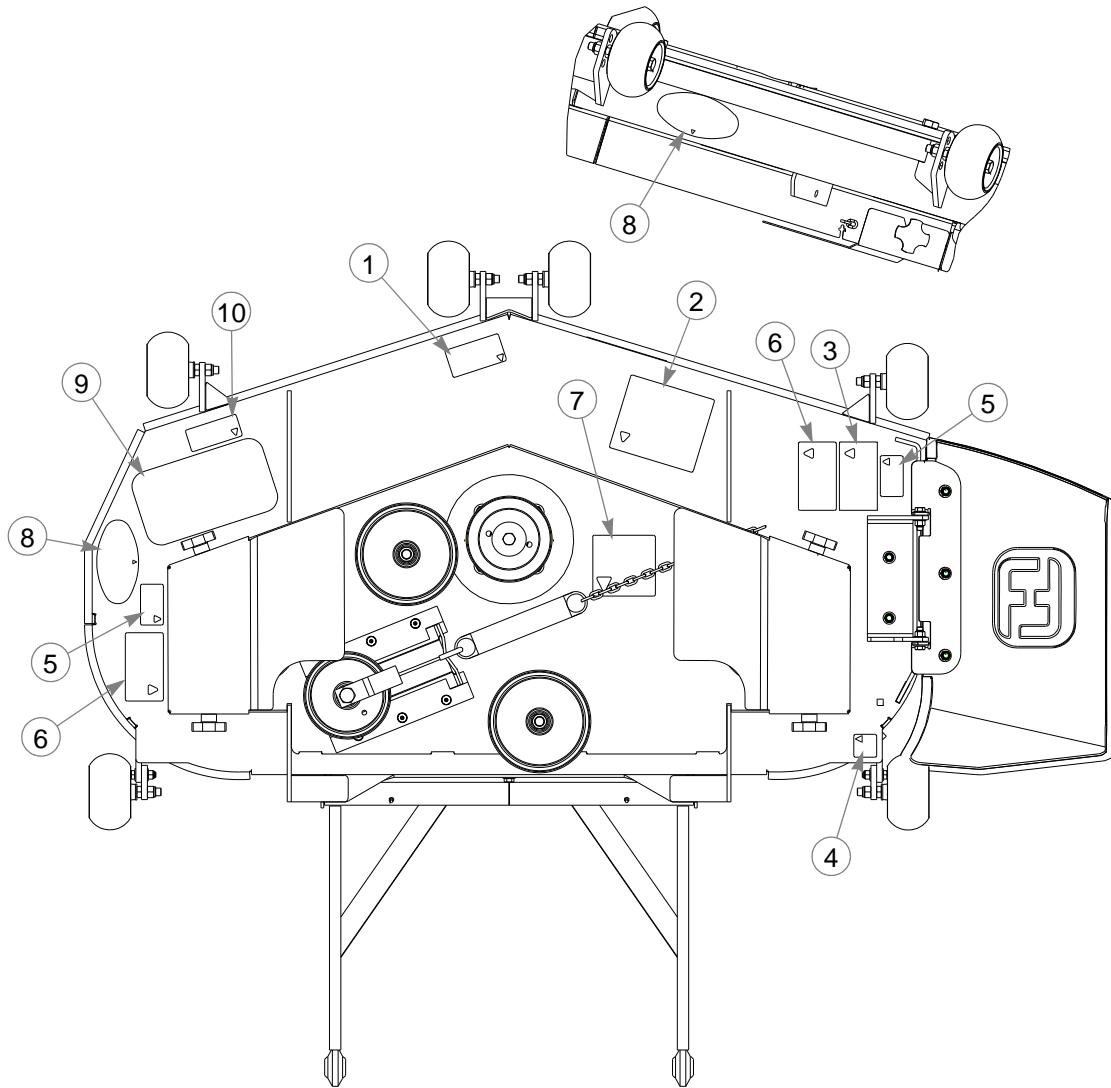
## 60" Side Discharge XR7 Deck Decals



ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	786277	786277	1	60" SIDE DISCHARGE DECK ID DECAL
2	760637	760637	1	MOWER DECK QUICK REFERENCE DECAL
3	727420	727420	1	DEFLECTOR SHIELD DECAL
4	727172	727172	1	"MADE IN U.S.A." DECAL
5	727453	727453	2	BELT & PULLEY DECAL
6	727438	727438	2	WHIRLING BLADES DECAL
7	799395	799395	1	BELT ROUTING DECAL
8	799353	799353	2	DECK XR7 ID DECAL
9	359547	359547	1	5.00 X 9.00 STEP TREAD
10	797845	797845	1	FUSION DECAL

### NOTES:

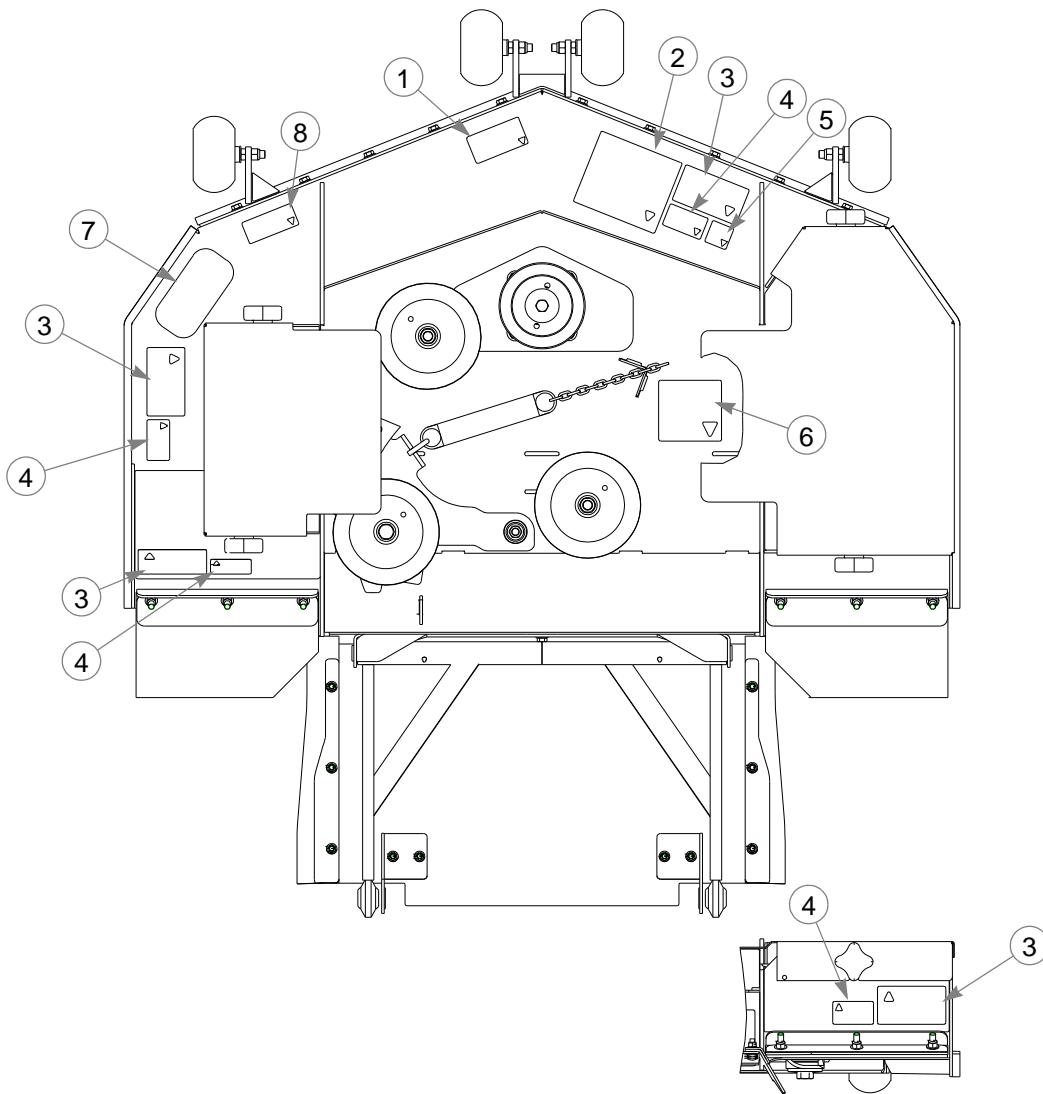
## **54" Side Discharge XR7 Deck Decals**



ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	799171	799171	1	54" SIDE DISCHARGE DECK ID DECAL
2	760637	760637	1	MOWER DECK QUICK REFERENCE DECAL
3	727420	727420	1	DEFLECTOR SHIELD DECAL
4	727172	727172	1	"MADE IN U.S.A." DECAL
5	727453	727453	2	BELT & PULLEY DECAL
6	727438	727438	2	WHIRLING BLADES DECAL
7	781419	781419	1	BELT ROUTING DECAL
8	799353	799353	2	DECK XR7 ID DECAL
9	359547	359547	1	5.00 X 9.00 STEP TREAD
10	797845	797845	1	FUSION DECAL

### **NOTES:**

## 54" Rear Discharge Deck Decals



ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	799171	799171	1	54" REAR DISCHARGE DECK ID DECAL
2	760637	760637	1	DECAL MOWER DECK QUICK REFERENCE
3	727438	727438	4	DECAL WHIRLING BLADES
4	727453	727453	4	DECAL BELT & PULLEY
5	727172	727172	1	DECAL 'MADE IN U.S.A.'
6	796953	796953	1	REAR DISCHARGE DECK ROUTING DECAL
7	794503	794503	1	STEP TREAD DECAL
8	797845	797845	1	FUSION DECAL

### NOTES:



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## Assembly Pictures and Aids

### General information for all models:

PTO clutch wire routing "FIG. 1".

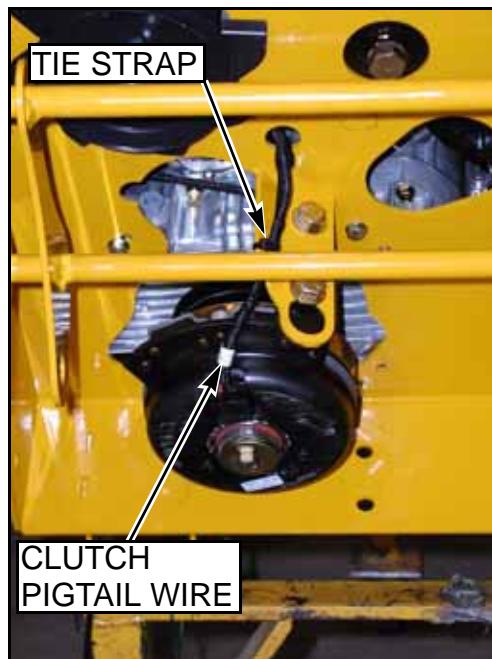


FIG. 1

PTO clutch switch installation (Instrument Panel) "FIG. 2" & "FIG. 3".



FIG. 2



FIG. 3

## **Hustler Z's with Kawasaki engines:**

Does not include machines with 29 HP or 26 HP engines.

Throttle cable routing "FIG. 4".

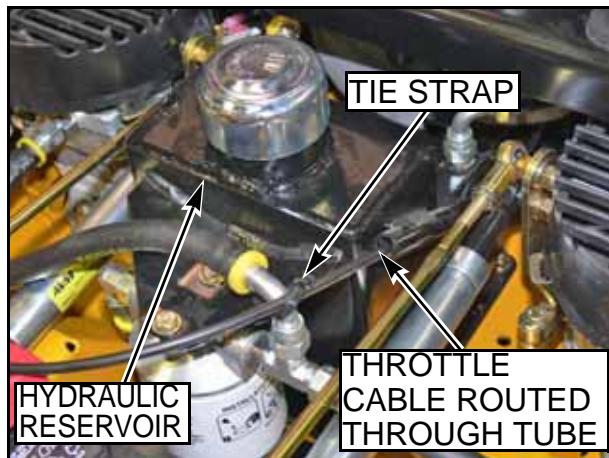


FIG. 4

Choke cable routing, front and rear tie straps "FIG. 5" & "FIG. 6".

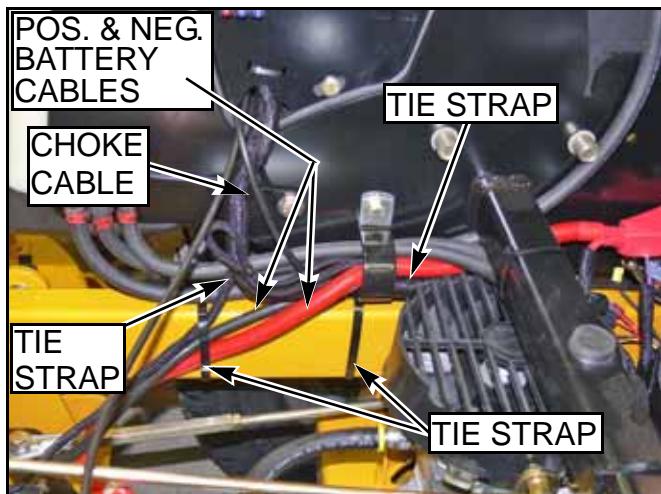


FIG. 5

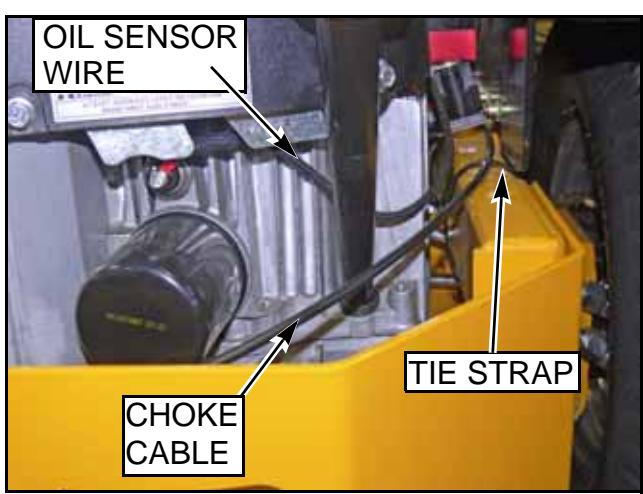


FIG. 6

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Fuel line routing "FIG. 7" & "FIG. 8".

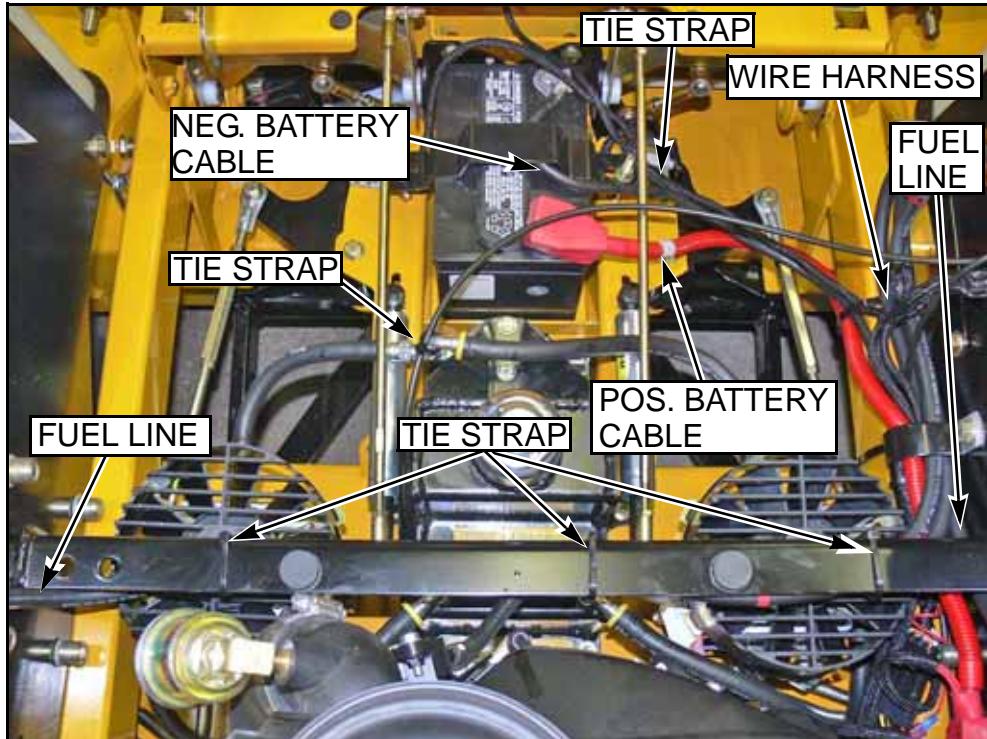


FIG. 7

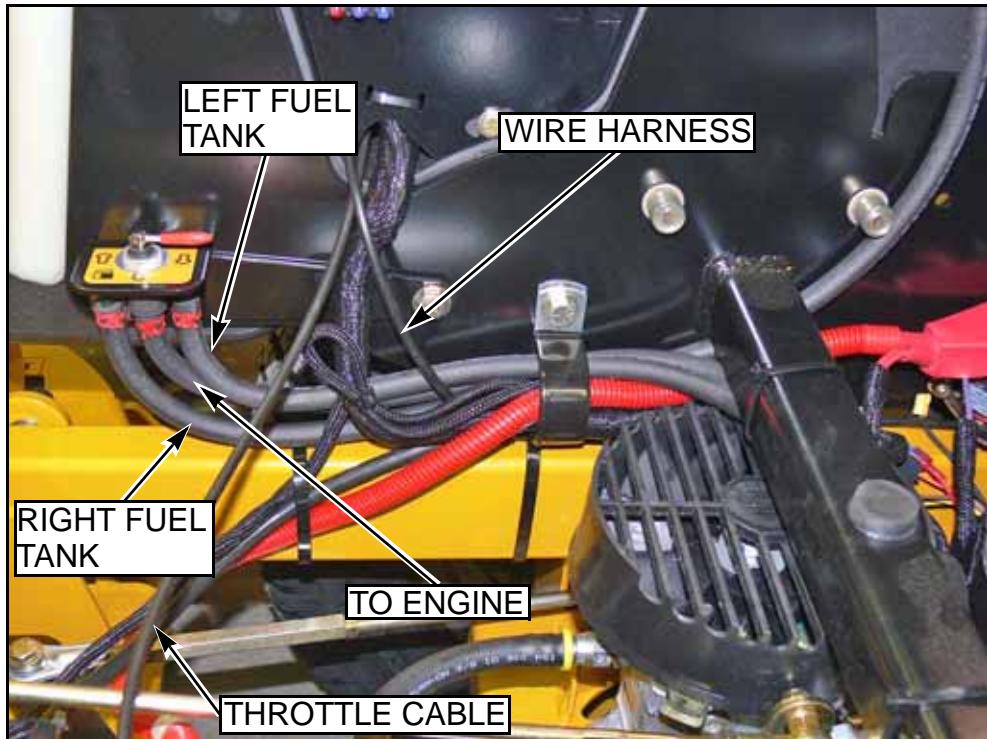


FIG. 8

## ***Hustler Zs with Kawasaki 29 HP engines:***

Routings "FIG. 9".

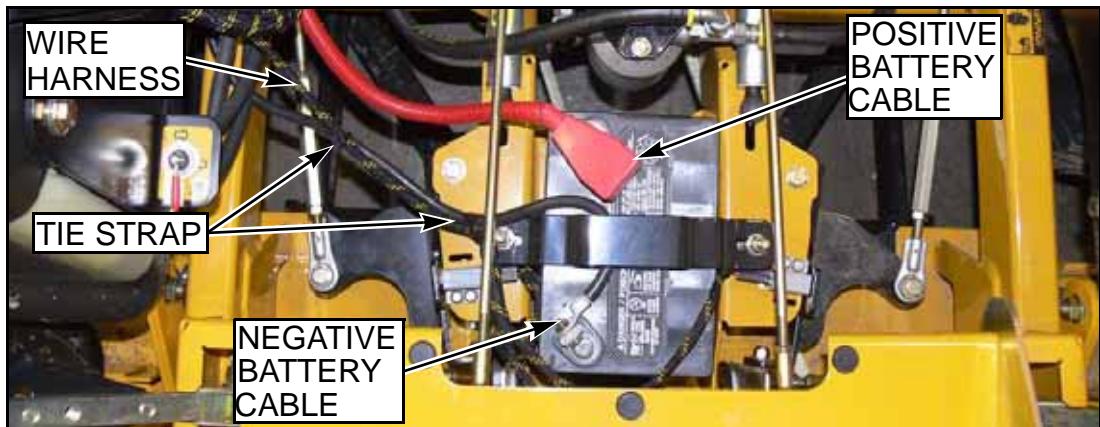


FIG. 9

Route fuel lines, battery cables, and choke and throttle cables and tie as shown, "FIG. 10". Tie fuel lines to seat support as shown in "FIG. 11" (right side shown, left side similar).

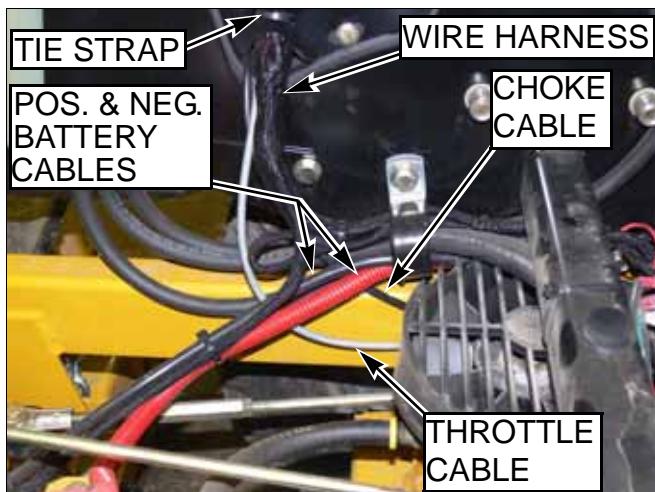


FIG. 10

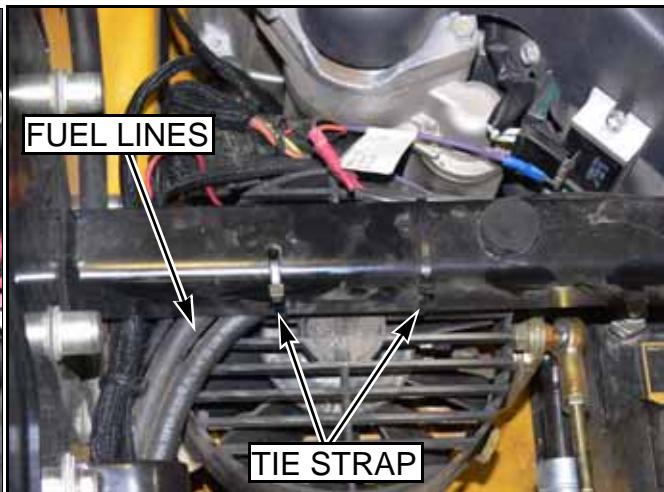


FIG. 11

Choke and throttle cable routed around engine, see "FIG. 12".

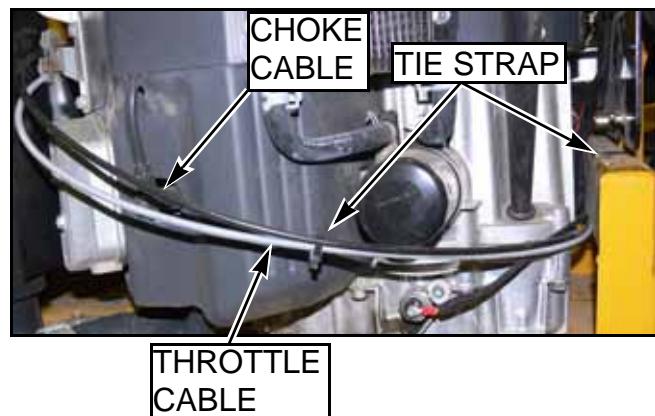


FIG. 12

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Choke and throttle cable connections to engine, see "FIG. 13".

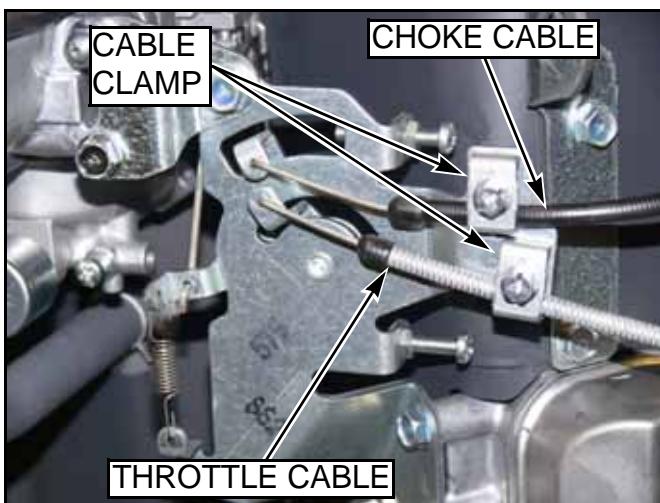


FIG. 13

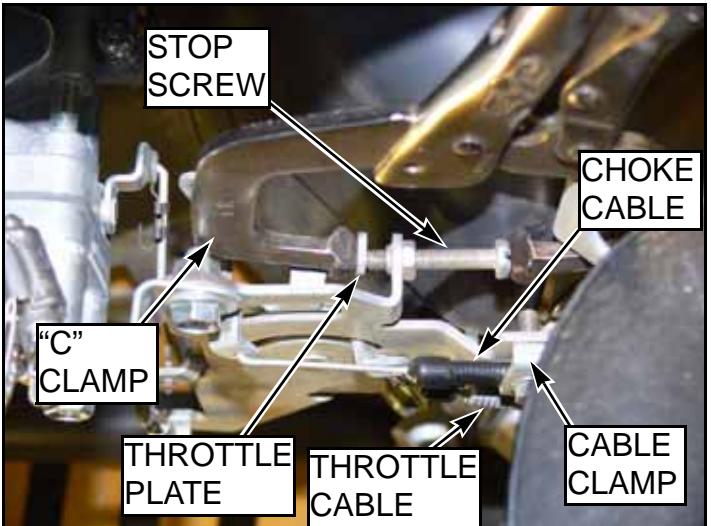


FIG. 14

**THROTTLE AND CHOKE CABLE INSTALLATION TO ENGINE (SEE "FIG. 13" & "FIG. 14").**

1. Clamp Instrument Panel to side of seat support in installed orientation
2. Make sure throttle lever is in the full throttle détent position.
3. Install Throttle Cable and leave cable clamp screw loose.
4. Clamp the throttle plate to the stop screw
5. Pull the cable conduit of the throttle cable rearward
6. Tighten the cable clamp screw and remove throttle plate clamp
7. Cycle the throttle lever 2 times, and then check the rpm. If the rpm is out of tolerance then repeat steps 4-6.
8. Attach choke cable to choke lever leaving the cable clamp loose
9. Leaving the choke cable in the down position, tighten the cable clamp screw.

**Hustler Z's with Kawasaki 26 HP engines:**

Cable and wiring harness routings: "FIG. 15" and "FIG. 16".

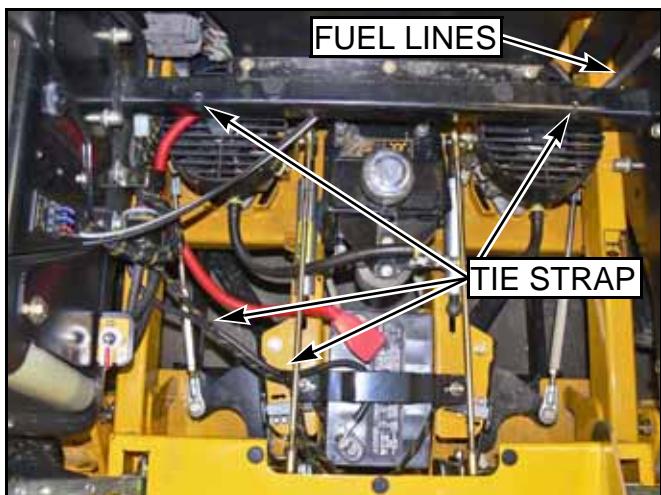


FIG. 15

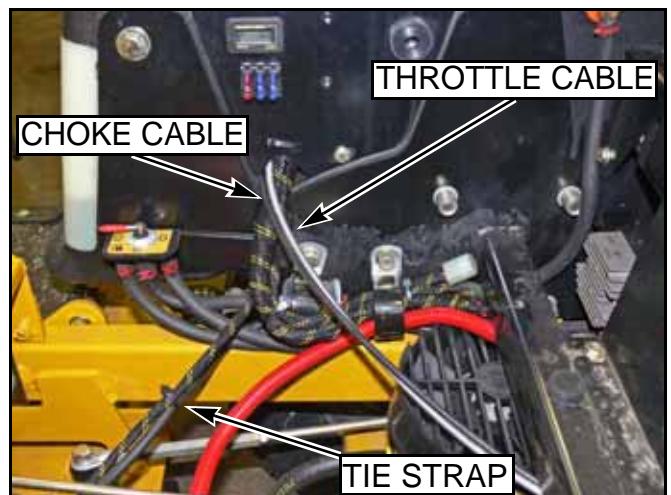


FIG. 16

Fuel line from left tank is run beneath seat support cross member.

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Throttle and choke cable connections to engine: "FIG. 17" and "FIG. 18".

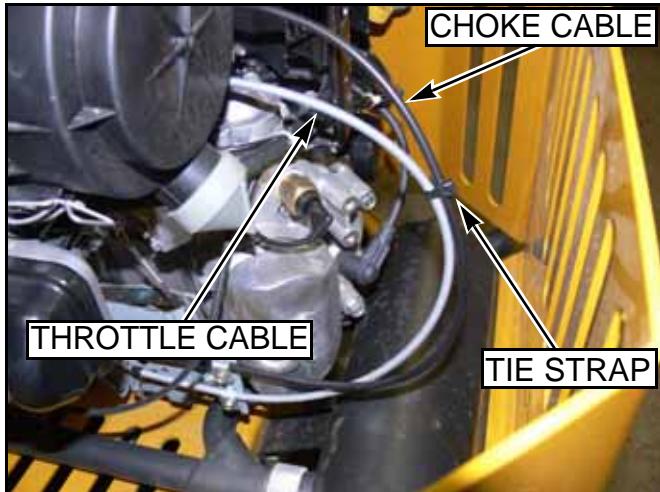


FIG. 17

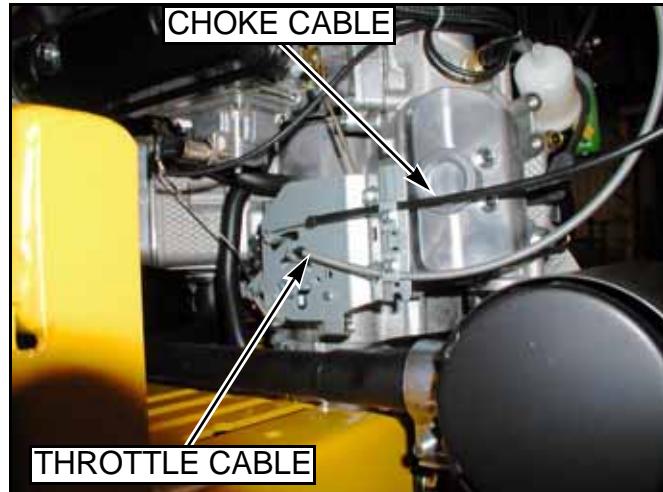


FIG. 18

### **Hustler Z's with Honda engines:**

Choke/Throttle cable routing "FIG. 19". Tie throttle and choke cables to hydro hose as shown. Fuel line routing "FIG. 20" & "FIG. 21".

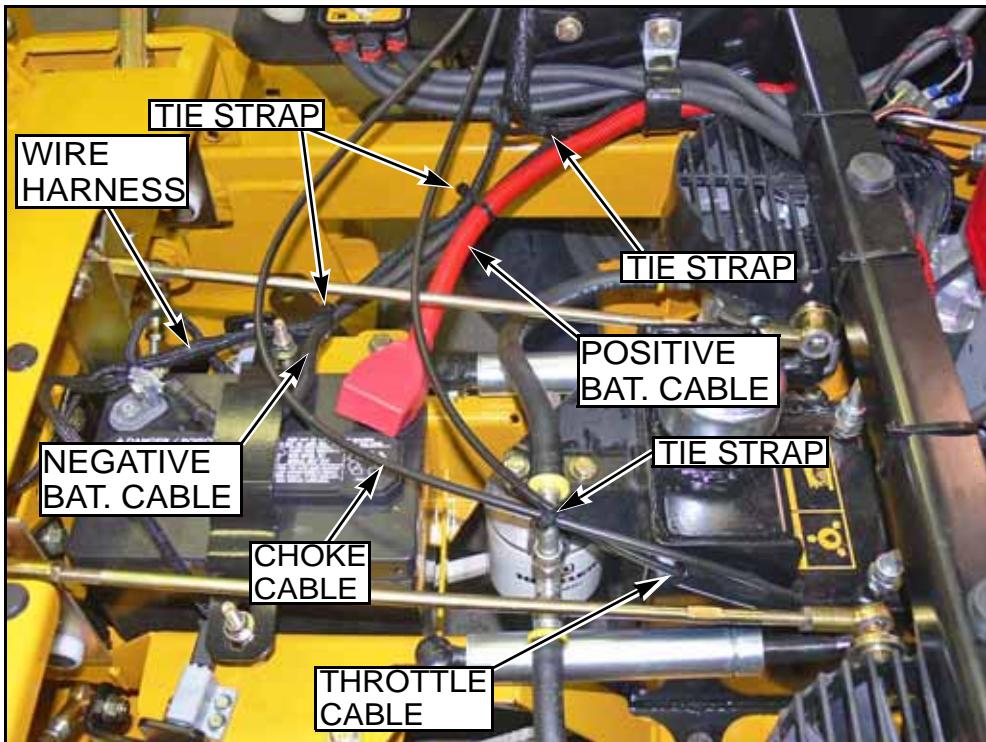
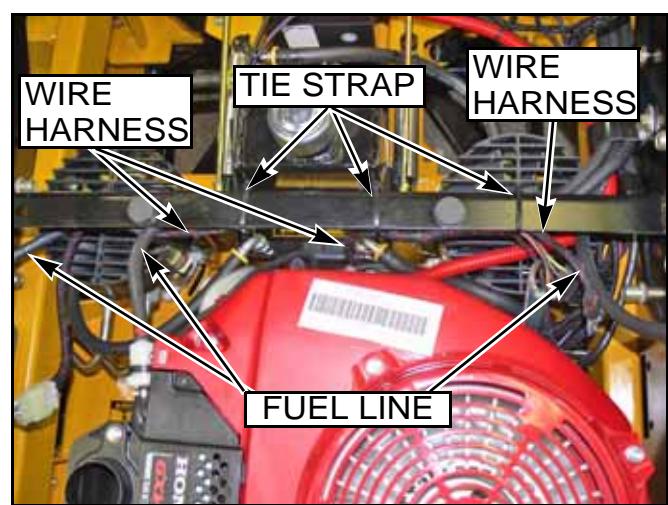
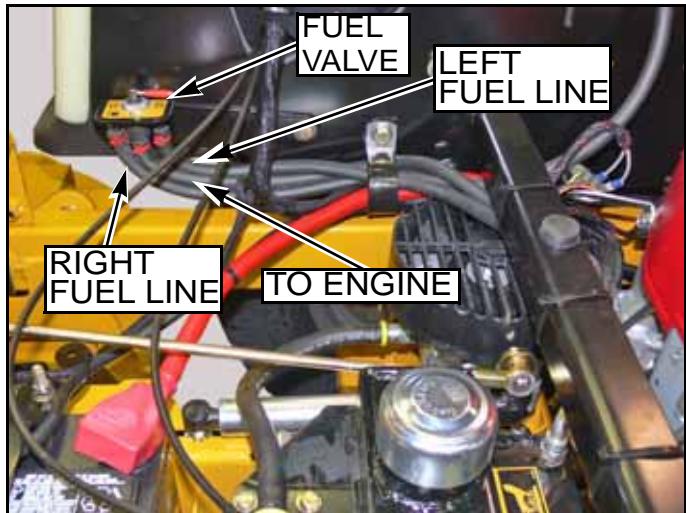
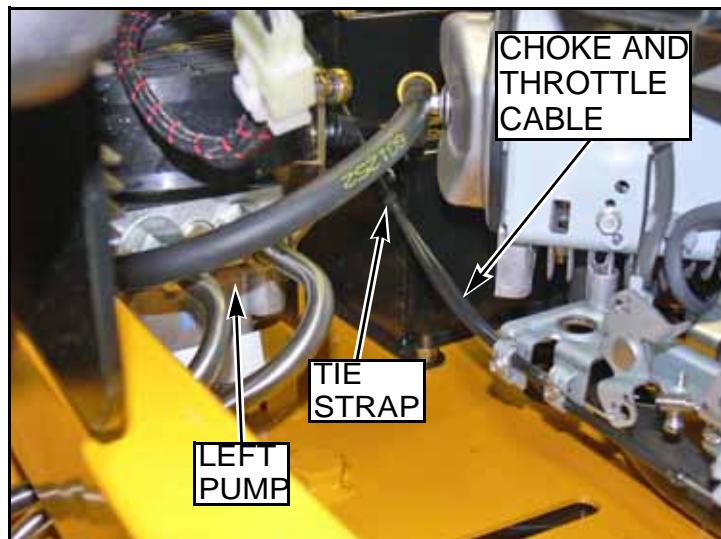


FIG. 19



Choke/Throttle cable routing "FIG. 22". Tie choke and throttle cables together.



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Honda carburetor drain/vent hose routing "FIG. 23".

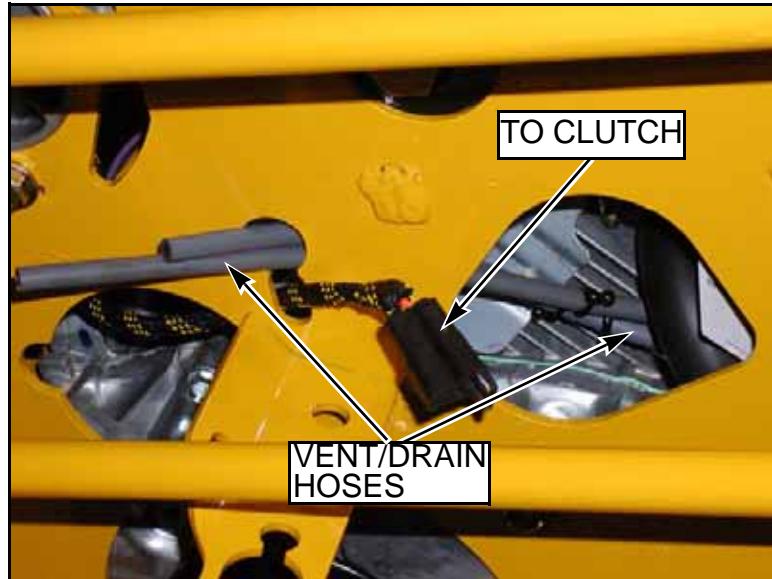


FIG. 23

### **Hustler Z's with Kohler engines:**

Wire harness and cable routing "FIG. 24", "FIG. 25", and "FIG. 26".

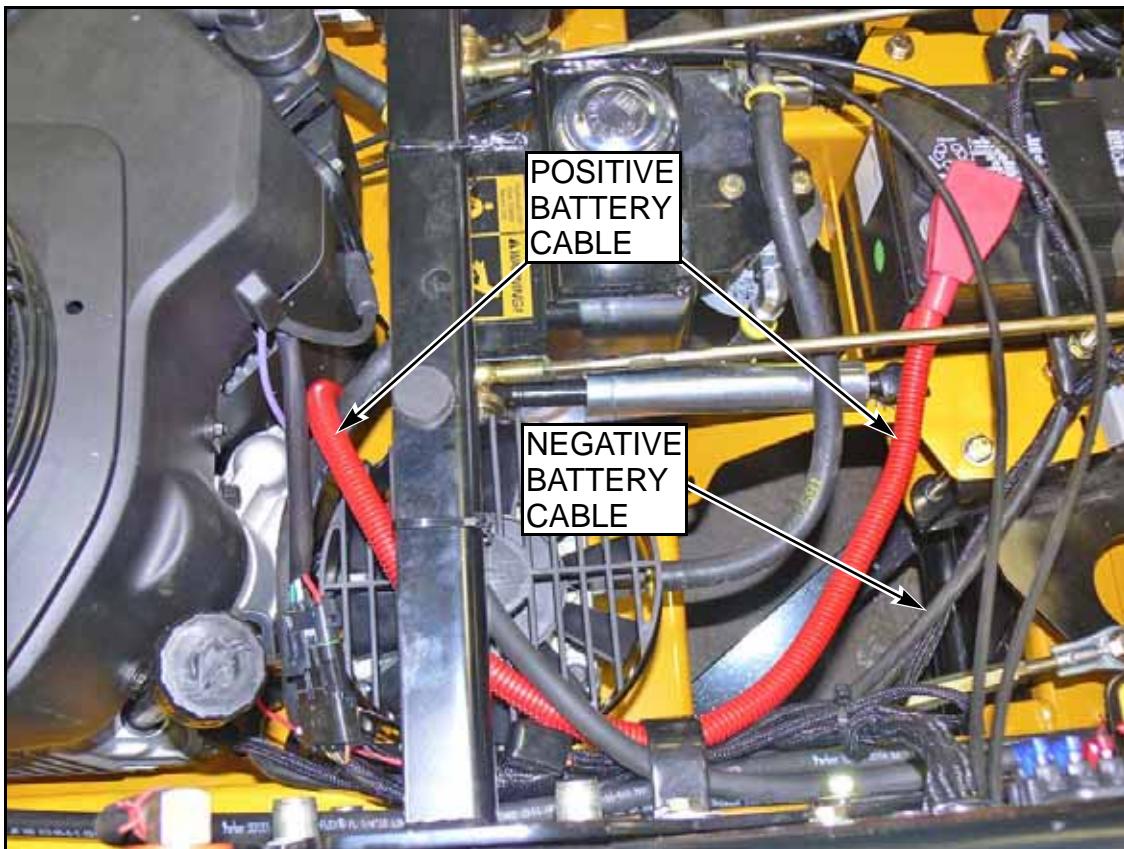


FIG. 24

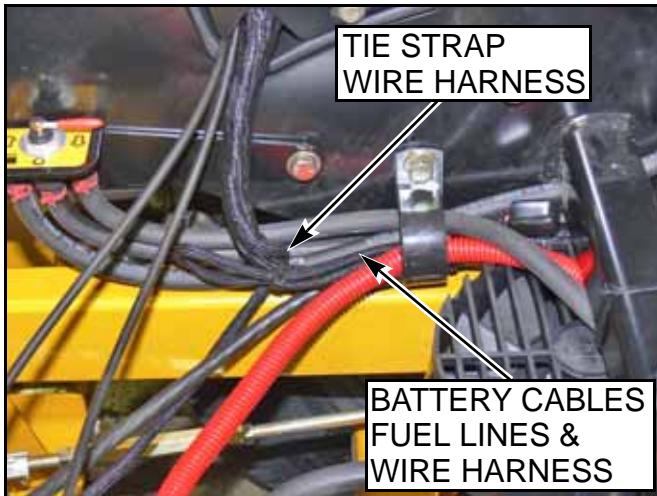


FIG. 25

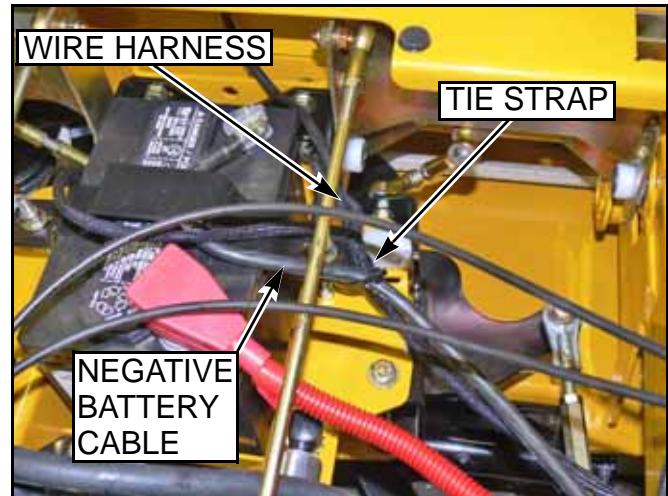


FIG. 26

Choke and throttle cable routing "FIG. 27".

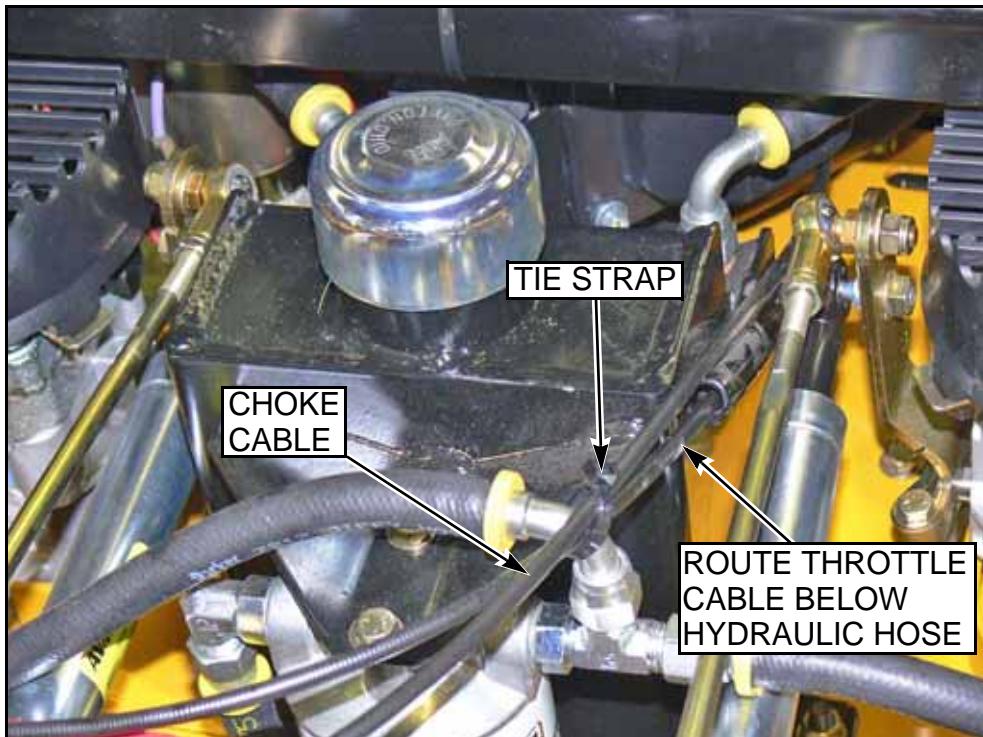


FIG. 27

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Fuel line routing "FIG. 28".

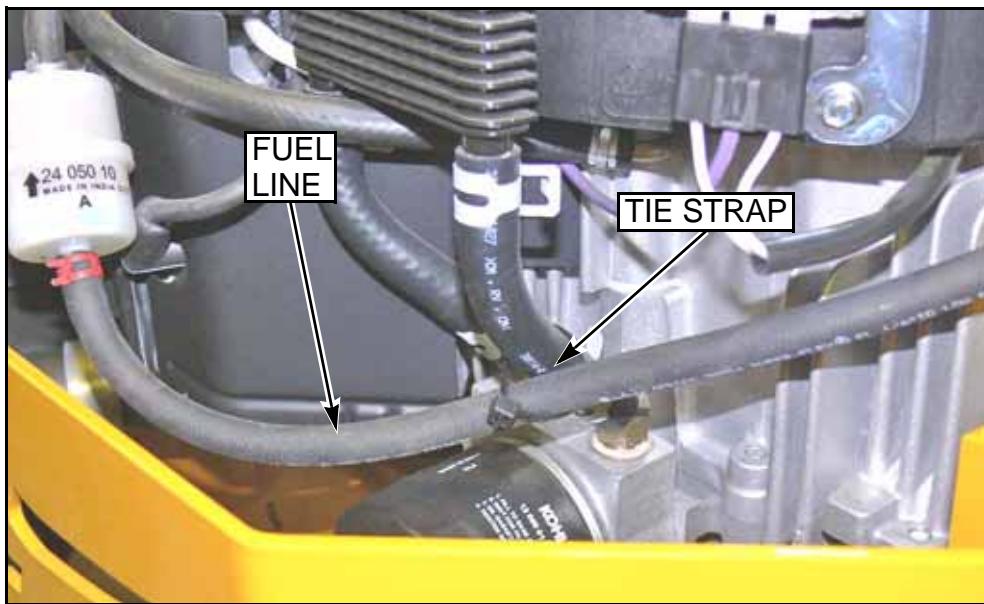


FIG. 28

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## Maintenance & Adjustment Safety



This safety alert symbol is used to call attention to a message intended to provide a reasonable degree of **PERSONAL SAFETY** for operators and other persons during the normal operation and servicing of this equipment.

**DANGER** – denotes immediate hazards which **WILL** result in severe personal injury or death.

**WARNING** – denotes a hazard or unsafe practice which **COULD** result in severe personal injury or death.

This manual uses two other words to highlight information. **IMPORTANT** calls attention to special mechanical information and **NOTE**: emphasizes general information worthy of special attention.

All operators should read this manual, or be instructed about safe operating and maintenance procedures. This is the owner's responsibility.

**Improper use or maintenance by the operator, mechanic, or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert ▲ symbol, which means DANGER or WARNING – “personal safety instructions.” Failure to comply with the instructions may result in personal injury or death.**

**Incorrect usage of this machine may result in severe injury. Personnel operating and maintaining it should be trained in the proper use and should read the manuals completely and thoroughly before attempting to set-up, operate, adjust, or service this machine.**

The Quick Reference Decals, located in front of and to the right of the seat, are designed to give the operator/mechanic brief information needed in the daily operation and service of the machine. These decals are not intended to be used in place of this manual but instead is to be used as an extension of this manual. These decals should not be removed or obliterated. Replace these decals if they become unreadable.

It is the **owner's responsibility** to make certain that the operator/mechanic reads and understands this manual and all decals before operating this machine. It is also the **owner's responsibility** to make certain that the operator/mechanic is a qualified and physically able individual, properly trained in the operation of this equipment. Local regulations may restrict the age of the operator/mechanic.

The owner should also ensure that the operator/mechanic knows that they are responsible for their own safety as well as the safety of other persons within the vicinity. **Remember**, the operator/mechanic is responsible for accidents or hazards occurring to other people or their property.

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## **Safe Maintenance & Adjustment Practices**

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- ▲ This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions to avoid serious injury or death.
- ▲ Unless specifically required, **DO NOT** have engine running when servicing or making adjustments to tractor. Place control levers in the park brake position, disengage deck clutch, remove ignition switch key and disconnect the negative battery cable. Repairs or maintenance requiring engine power should be performed by trained personnel only. To prevent carbon monoxide poisoning, be sure proper ventilation is available when engine must be operated in an enclosed area.
- ▲ Follow daily and weekly checklists, making sure hoses are tightly secured and bolts are tightened.
- ▲ Keep your machine clean and remove any deposits of trash and clippings, which can cause engine fires and hydraulic overheating as well as excessive belt wear. Clean up oil or fuel spillage. Allow machine to cool before storing.
- ▲ **Clean flammable material from machine. Prevent fires by keeping engine compartment, battery, hydraulic lines, fuel line, fuel tank and operator's station clean of accumulated trash, grass clippings, and other debris. Always clean up spilled fuel and oil.**
- ▲ Always wear adequate ear protection, such as earplugs, when operating this equipment as prolonged exposure to uncomfortable or loud noises can cause impairment or loss of hearing. Do not wear radios or music headphones while operating the machinery. Safe operation requires your full attention.
- ▲ Never put hands or feet under any part of the machine while it is running.
- ▲ Except when changing or checking belt, **always** keep belt covers on mower for safety as well as cleanliness.
- ▲ Stop the engine before removing the grass catcher or unclogging the discharge chute. Never clear the discharge chute with the engine running. Turn off the engine and be sure the blades have stopped before cleaning. Use a stick to clear a plugged discharge area. **Never use your hand!**
- ▲ Exercise caution when loading or unloading the machine onto a trailer or truck.
- ▲ Always wear safety goggles or safety glasses with side shields when operating the mower.
- ▲ Never leave machine unattended with ignition key in switch, especially with children present.
- ▲ Be alert and turn the machine off if children enter the area.
- ▲ Always wear adequate eye protection when servicing the battery, hydraulic system, cooling system or when grinding mower blades and removing accumulated debris.
- ▲ Use extra caution when handling gasoline and other fuels. They are flammable and vapors are explosive.
- ▲ Never refuel tractor while engine is running; never refuel near an open flame or near devices which can create a spark. Refuel outdoors preferably, or in well ventilated areas.
- ▲ Never attempt to start engine when there is a strong odor of gasoline fumes present. Locate and correct cause.
- ▲ Never run the engine in an enclosed area unless exhaust is vented to the outside. Exhaust gases contain carbon monoxide which is odorless and deadly poison.
- ▲ Never attempt to make any adjustments or repairs to the tractor drive system, mower deck or any attachment while the tractor engine is running or deck clutch is engaged. Repairs or maintenance requiring engine power should be performed by trained personnel only.
- ▲ Never work under the machine or attachment unless it is safely supported with jack stands. Make certain machine is secure when it is raised and placed on the jack stands. The jack stands should not allow the machine to move when the engine is running and the drive wheels are rotating. **Use only certified jack stands.** Use only appropriate jack stands, with a minimum weight rating of 2000 pounds to block the unit up. Use in pairs only. Follow the instructions supplied with the vehicle stands.
- ▲ Before working on or under the deck, make certain engine cannot be accidentally started. Shut engine

---

off and remove ignition switch key for maximum safety. Repairs or maintenance requiring engine power should be performed by trained personnel only.

- ▲ Use a stick or similar instrument to clean under the mower making sure that no part of the body, especially arms and hands are under mower.
- ▲ Exercise caution when working under the deck as the mower blades are extremely sharp. Wearing gloves or wrapping the blade(s) is advisable when working around or with the blades.
- ▲ Do not touch hot parts of machine.
- ▲ Keep nuts and bolts tight, especially the blade attachment bolts. Keep equipment in good condition.
- ▲ Never tamper with safety devices. Check their proper operation regularly.
- ▲ Grass collection system components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- ▲ Use only genuine Hustler replacement parts to ensure that original standards are maintained

## Using a ramp

- ▲ Use extreme caution when loading and unloading a unit with a ramp.
- ▲ Use only a single, full width ramp; do not use individual ramps for each side of the unit. Having a full width ramp provides a surface for the tractor frame to contact if the unit starts to tip backwards. It also reduces the risk of a wheel going off and the machine tipping over.
- ▲ Do not exceed a 15 degree angle between the ramp and the ground or between the ramp and the trailer or truck.
- ▲ When on a ramp avoid sudden acceleration

## Safety and Instruction Decals

▲ Specific safety warning decals are located on the equipment near the immediate areas of potential hazards. These decals should not be removed or obliterated. Replace them if they become non-readable.

The following illustrations show the various **safety decals** that are located on the machine. A brief explanation, for those requiring one, is shown to help the operator understand the meanings of these decals.



Read Owner's Manual and Quick Reference Decal before attempting to operate this machine.



Part Number  
727016

Avoid skin contact with battery acid.  
Always wear eye protection when checking the battery, acid can cause serious injury to skin and eyes. If contact occurs, flush area with clean water and call physician immediately. Acid will also damage clothing.  
Do not allow open flame near the battery when charging.  
Hydrogen gas forms inside the battery. This gas is both toxic and flammable and may cause an explosion if exposed to flame.  
Always remove the negative ground first and replace it last.  
Do not overfill battery.  
Electrolyte may overflow and damage paint, wiring or structure.  
When cleaning the battery, use soap and water. Be careful not to get soap and water into the battery. Use soda mixed in water to clean corrosion off the terminals.



▲ Clean up any gasoline spills.  
▲ Do not refuel while in enclosed trailer  
▲ Stop engine and allow engine to cool for 2 minutes prior to refueling

Do not smoke while refueling.  
Do not fill tank with engine running, or while the engine is hot.  
Allow engine to cool before storing machine inside a building.  
Store away from open flame or spark if there is fuel in tank.  
Clean up any gasoline spills.  
Do not refuel while in enclosed trailer or other enclosed areas.



Part Number  
727420

Never operate the mower deck with side deflector removed or in raised position, except when the grass catcher attachment is being used.



Part Number  
727438

**Whirling blades! Keep hands and feet away.**  
Beware of thrown objects.



Part Number  
771436

**Do not** remove or modify stabilizer wheels or rear engine guard or injury can result.



Part Number  
727453

**Keep shields or covers in place while machine is in operation.** Keep hands away from rotating pulleys and belts.



Part Number  
788968

**Keep engine and pump compartment(s) clean (especially in exhaust area) to prevent fire and provide maximum engine and hydraulic cooling.**



Part Number  
600899

**If you lose steering control while operating the machine, place the steering control levers in the park brake position immediately. Inspect the machine and involve your Hustler dealer to resolve the problem before continuing to operate. If pump belt fails, steering control will be lost.** Refer to owner's manual for inspection and replacement intervals and refer to above paragraph for emergency procedures.



Part Number  
727008

Hydraulic fluid escaping under pressure can penetrate skin. Hydraulic fluid may also cause infection in a minor cut or opening in the skin; if exposed to hydraulic fluid, see a doctor at once. Before applying pressure to hydraulic system, make sure all connections are tight and all hoses and lines are in good condition. Relieve all pressure in the system before disconnecting or working on hydraulic lines. To find a leak under pressure, use a piece of cardboard or wood – never use your hands. To relieve all pressure in system, turn engine off and lower attachment.

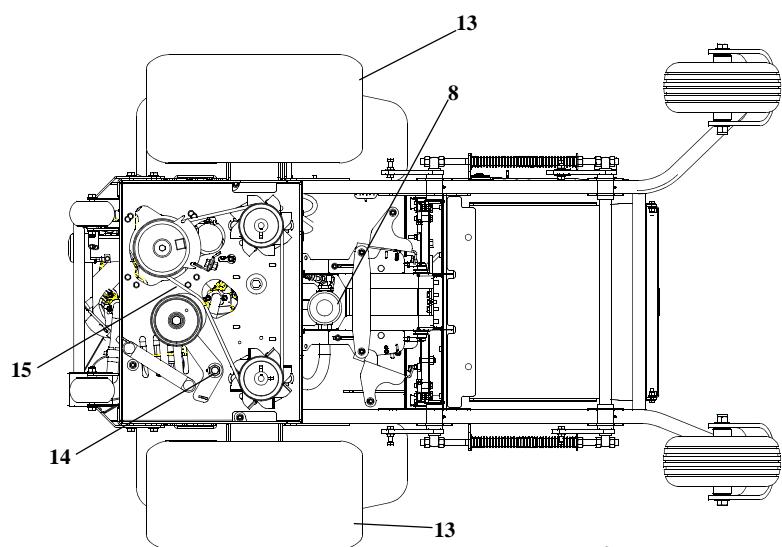
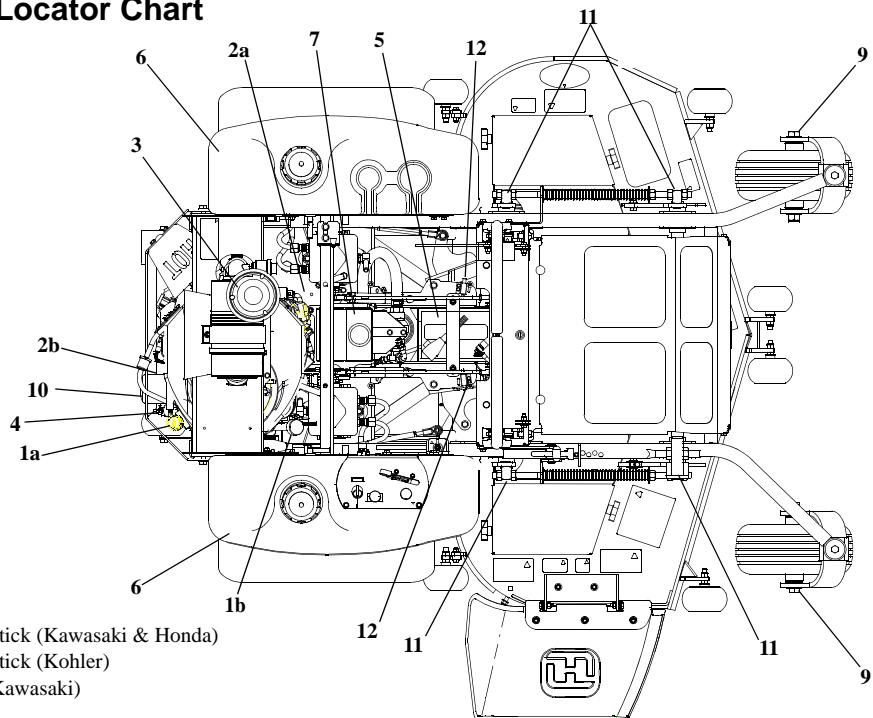


Part Number  
779280

Hot surface!

# Maintenance

## Maintenance Locator Chart

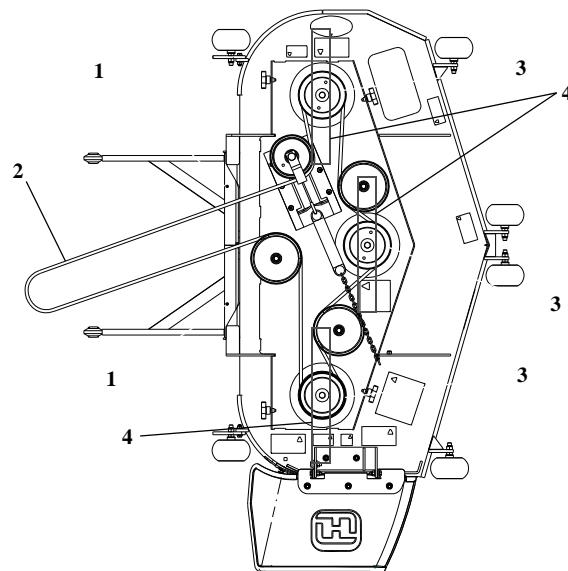


Viewed from bottom of tractor

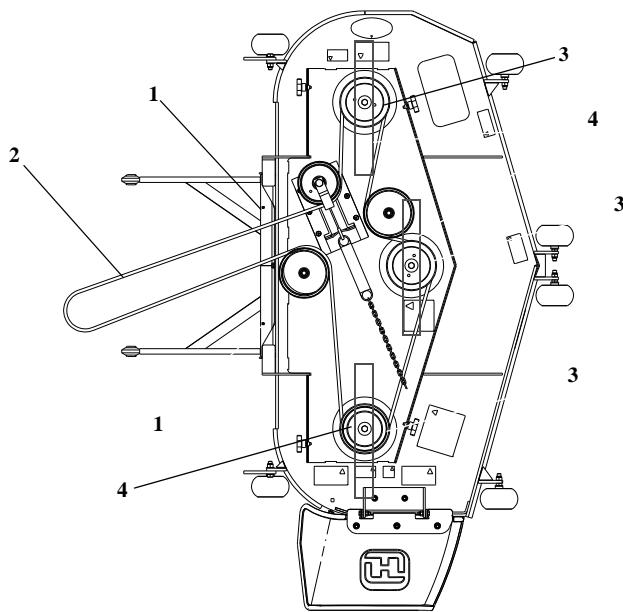
FIG. 29

## Maintenance Locator Chart

60" XR7 deck



54" & 66" XR7 deck



- 1. Deck Pusher Arm Zerks (2)
- 2. Deck Belt
- 3. Spindle Housing Zerk (3)
- 4. Blades

54" Rear Discharge deck

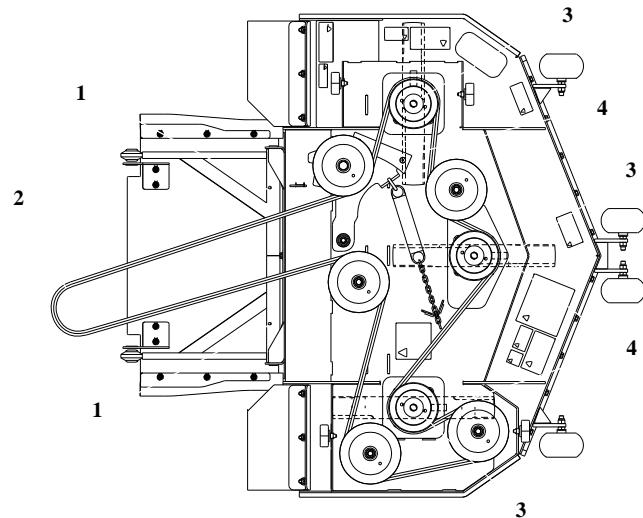


FIG. 30

SERVICE AT INTERVALS INDICATED	WEEKLY OR 50 HOURS	MONTHLY OR 100 HOURS	ANNUALLY OR 500 HOURS
Verify safety start interlock system		Daily	
Visually inspect unit for loose hardware and/or damaged parts		Daily	
Visually inspect tires		Daily	
Check oil level, engine (1)		Daily or every 4 hours	
Clean air intake screen (5)		Daily or every 4 hours	
Check fuel level		Daily	
Blades - sharpen & securely fastened		Daily	
Discharge chute - securely in place & in lowest position		Daily	
Clean engine and pump compartment		Daily	
Replace air cleaner paper element (5)		As needed	
Grease deck idler	X		
Grease deck pusher arms	X		
Grease pump idler	X		
Grease deck height pivots	X		
Grease gauge wheel bearings	X		
Change engine oil and filter (1) (4)	X		
Clean cylinder and head fins(a)	X		
Check battery connections	X		
Check tire pressure with a gauge	X		
Check hydraulic oil level	X		
Clean engine exterior (a)	X		
Clean & regap spark plugs (a)		X	
Check pump and deck belt tension and condition (6)		X	
Check fuel and hydraulic lines (7)		X	
Check fuel valve and grommet (7)		X	
Tighten lug nuts on wheels (2)		X	
Change fuel filter			X
Clean or replace hydraulic fill cap			X
Change hydraulic oil and filter (3)			X
Grease deck spindle housings			X
Replace spark plugs			X

#### NOTES:

1. Initial oil change is after 5 hours of operation. Thereafter, change oil after every 40 hours operation. Change more often under dusty or dirty conditions and during hot weather periods.
2. Torque initially and after first 2 hours of operation.
3. Perform initial hydraulic filter change after 50 hours (one week) of operation.
4. Change engine oil filter per the engine manufacturer's recommendations. Refer to Engine Owner's Manual for recommendations and other maintenance items.
5. Service more often under dusty or dirty conditions. Use caution when servicing to prevent dust contamination in the engine. **Do not** clean filter element. Replace with a new one.
6. **Pump drive belt only - Inspect every 100 hours** and replace if worn or cracking is noticed. Otherwise, **replace every 400 hours or 2 years** whichever comes first.
7. Check fuel line hoses, fuel valve and grommets for any cracks or leaks

#### REFERENCES:

a-- Refer to Engine Owner's Manual

**NOTE:** After completing maintenance cycle (500 hours), repeat cycle.

---

## INTRODUCTION

Regular maintenance is the best prevention for costly downtime or expensive, premature repair. The following pages contain suggested maintenance information and schedules which the operator should follow on a routine basis.

Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.

Clear away heavy build-up of grease, oil and dirt, especially in the engine and hydraulic reservoir areas; minute dust particles are abrasive to close-tolerance engine and hydraulic assemblies.

**Daily inspect** mower for grass clippings and wire and string tangles. The underside of the mower deck will collect a build-up of grass clippings and dirt, especially when grass is wet or has high moisture content. This build-up will harden, restricting blade and air movement and will probably show a poorer quality of cutting. Therefore it should be removed routinely.

To do this it will be necessary to raise and block the deck in the full up position, using jack stands or blocks, and scrape the build-up from underneath.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Hustler service center when assistance is needed.

## Torque values



**WARNING:** Particular attention must be given to tightening the drive wheel lug nuts, wheel motor nuts and blade spindle bolts. Failure to correctly torque these items may result in the loss of a wheel or blade, which can cause serious damage or personal injury.

Torque values are given below:

	Ft-lbs.	Nm
Wheel (lug) nuts .....	65-75 .....	88.14-101.7
Wheel motor nut.....	290-310.....	393.2-420.4
Blade spindle bolt top.....	65-75.....	88.14-101.7
Blade spindle bolt bottom.....	118.....	160.01

It is recommended that these be checked after the first 2 hours of operation initially, every 50 hours, and following removal for repair or replacement.

For all other torques refer to the various tractor parts manuals for standard torque charts.

**NOTE:** For engine torque values, see engine owner's manual.

## Tires

It is important for level mowing that the tires have the same amount of air pressure. The recommended pressures are:

- Drive wheels ..... 8-12 psi (55-69 KPa)
- Gauge wheels ..... 8-12 psi (55-69 KPa)

**Solid fill tires are not recommended** for Hustler turf equipment. On any machine, with solid filled tires, the warranty claim will be denied.



**WARNING:** Explosive separation of a tire and rim can cause serious injury or death.

Do not attempt to mount a tire without the proper equipment and experience to perform the task.

Always maintain the correct tire pressure and never over inflate.

Never weld or heat a wheel and tire assembly as an explosion may occur. Welding can weaken or deform a wheel.

When inflating tires, stand to one side and **not** in front of or over the tire assembly.

Check tires for low pressure, blemishes, damaged rims or missing lug bolts and nuts.

## Hour meter

To recognize when your machine needs servicing, check the hour meter and the maintenance schedule. The hour meter shows the number of hours the engine has run, and the maintenance schedule lists the service intervals. "FIG. 31".

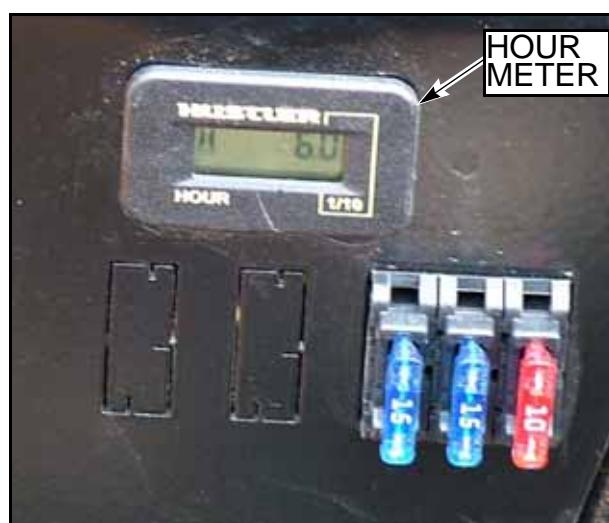


FIG. 31

## Lubrication

1. Grease the front gauge wheel bearings per the Maintenance Schedule. Use SAE multi-purpose grease.
2. Grease the four deck lift pivots, located to the side of the operator's footrest per the Maintenance Schedule. Use SAE multi-purpose grease.
3. Grease the deck idler per the Maintenance Schedule. Use SAE multi-purpose grease.
4. Grease the pump idler per the Maintenance Schedule. Use SAE multi-purpose grease.
5. Grease the two deck pusher arm pivots per the Maintenance Schedule. Use SAE multi-purpose grease.
6. Grease the blade spindle assemblies per the Maintenance Schedule. The spindle assemblies require lubrication annually. Each spindle shaft is equipped with a grease zerk located under the deck. Use no more than one or two ounces of SAE multi-purpose grease, (1 to 2 pumps on an average grease gun). Do not force lubricant into grease zerks. Bearings are sealed and do not require much lubricant.

---

## Electrical system

The electrical system is a 12-volt, negative ground. Recommended battery size is a garden tractor BCI group U1R with 225 or better cranking AMP rating. A maintenance-free battery is recommended. Otherwise, follow battery manufacturer's maintenance, safety, storing and charging specifications.

The battery is located under the seat platform "FIG. 32".



FIG. 32



**WARNING:** Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.



**WARNING:** Avoid skin and clothing contact with battery acid.

Always wear eye protection when checking the battery, acid can cause serious injury to skin and eyes. If contact occurs, flush area with clean water and call physician immediately. Acid will also damage clothing.

Do not drink the battery electrolyte.

Do not allow open flame near the battery when charging.

Hydrogen gas forms inside the battery. This gas is both toxic and flammable and may cause an explosion if exposed to flame.

Always remove the negative ground first and replace it last.

Do not overfill battery.

Electrolyte may overflow and damage paint, wiring or structure. When cleaning the battery, use soap and water. Be careful not to get soap and water into the battery. Clean the battery terminals with a solution of four parts water and one part baking soda when they become corroded.



**WARNING:** Shorts caused by battery terminals or metal tools touching metal tractor components can cause sparks. Sparks can cause a battery gas explosion which will result in personal injury.

Prevent the battery terminals from touching any metal tractor parts when removing or installing the battery.

Do not allow metal tools to short between the battery terminals and metal tractor parts.



**WARNING:** Incorrect battery cable routing could cause damage to the tractor and battery cables. This can cause sparks which can cause a battery gas explosion which will result in personal injury.

Always **disconnect** the negative (black) battery cable before disconnecting the positive (red) cable.

Always **connect** the positive (red) battery cable before connecting the negative (black) cable.

Common circuit failures are usually caused by shorting, corroded or dirty terminals; loose connections, defective wire insulation or broken wires. Switches, solenoids and ignition components may also fail, causing a shorted or open circuit.

Before attempting any failure diagnosis of the electrical system, use a test light or voltmeter to check the battery voltage. If the battery voltage is satisfactory, check the cleanliness and tightness of the terminals and ground connections. A general understanding of electrical servicing and use of basic test equipment is necessary for troubleshooting and repair.

Major overhaul or repair of the starting motor or charging system should be performed by trained technicians only.

## Access to engine and hydraulic pumps

The hydraulic pumps are accessed by lifting the seat platform. The seat platform is hinged at the front. To raise it, release seat latch and tilt seat platform up and forward. The seat platform catch ("FIG. 33") will prevent the seat from going all the way over. However, if more access is desired under the seat platform, the seat platform catch can be raised allowing the seat to pivot more. **Make certain to place the control arms in the park brake position and pivot the arm rests upward before placing the seat platform in the full forward position to prevent arm rest damage.**

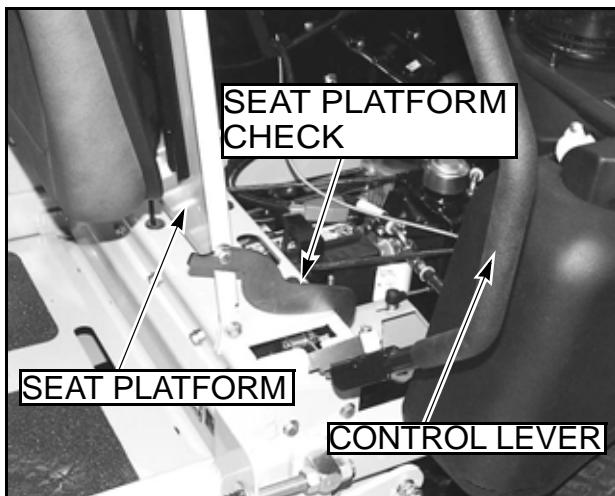


FIG. 33



**WARNING:** Always wear adequate eye protection when servicing the hydraulic system and battery.

## Hydraulic system

**IMPORTANT:** Never use hydraulic or automatic transmission fluid in this system; use only motor oil as specified. Remember, dirt is the primary enemy of any hydraulic system.

**WARNING:** Hydraulic oil escaping under pressure can penetrate skin. Hydraulic oil may cause infection in a minor cut or opening in the skin. If exposed to hydraulic fluid, see a doctor at once.

Before applying pressure to hydraulic system, make sure all connections are tight and all hoses and lines are in good condition. To find a leak under pressure, use a piece of cardboard or wood — **never** use your hands. Relieve all pressure in the system before disconnecting or working on hydraulic lines. To relieve pressure, lower all attachments and shut off engine.

The 1.0 U.S. gallon (3.79 liter) hydraulic reservoir is located in front of the engine and under the operator's platform "FIG. 34".

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Check oil level in hydraulic system after every 50 hours of operation or weekly, whichever occurs first. Check more often if system appears to be leaking or otherwise malfunctioning.

Fluid level should be 1" from top of reservoir. Use only SAE 20W50 SG, SF/CC, CD service motor oil.

Change hydraulic system filter element ("FIG. 34") after first 50 hours of tractor operation, then replace filter and oil in reservoir every 500 hours thereafter.

The system filter is located directly in front of the hydraulic reservoir. A standard oil filter wrench is used to change filter, threads are right handed. **Use a Hustler approved filter element only.**

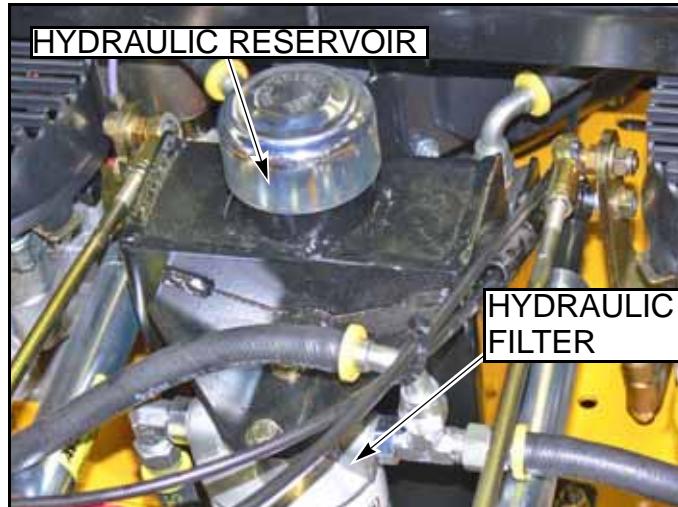


FIG. 34

**IMPORTANT:** Prefill the filter element with clean oil, before installing, to prevent drawing air into the system pump.

1. Fill the filter element with clean system oil. Smear a light coating of oil on upper surface of rubber seal.
2. Install the filter element on base. Tighten the oil filter by hand until the filter seal makes contact with the filter head, then tighten an additional 3/4 - 1 turn with an oil filter wrench. — DO NOT OVERTIGHTEN.
3. Start tractor engine and let run at approximately 2/3 throttle for a few minutes to work any trapped air out of the system before engaging the steering control lever.
4. Stop the engine and check the filter and connections for leaks.
5. Check the hydraulic reservoir for specified oil level. Add clean oil as necessary.

Clean or replace hydraulic reservoir cap annually. Cap may be cleaned by dipping in or flushing with cleaning solvent. Follow manufacturer's instructions and warnings for application of solvent type selected.

## Fuel system



**DANGER:** Observe usual fuel handling precautions:

Do not smoke while refueling.

Do not fill tank with engine running or while engine is hot. Clean up any gasoline spills.

Allow engine to cool before storing machine inside a building.

Keep fuel away from open flame or spark and store machine away from open flame or spark if there is fuel in the tank.

Use extra caution when handling gasoline and other fuels. They are flammable and vapors are explosive. A fire or explosion from gasoline can burn you and others and can damage property.

Refuel outdoors preferably, or in well ventilated areas.

Never attempt to start engine when there is a strong odor of gasoline fumes present. Locate and correct cause.

Store gasoline in an approved container and keep it out of the reach of children. Never buy more than a 30 day supply of gasoline.

Always place gasoline containers on the ground away from your vehicle before filling.

Do not fill gasoline containers inside a vehicle or on a truck or trailer as interior carpets or plastic truck bed liners may insulate the container and slow the loss of any static charge.

When practical, remove equipment from the truck or trailer and refuel the equipment with its wheels on the ground. If this is not possible, then refuel the equipment on the truck or trailer using a portable container and not a gasoline dispenser nozzle. If a gasoline dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.

**WARNING:** Gasoline is harmful or fatal if swallowed.



Long-term exposure to vapors can cause serious injury and illness.

Avoid prolonged breathing of vapors.

Keep face away from nozzle and gas tank or conditioner opening.

Keep gas away from eyes and skin.

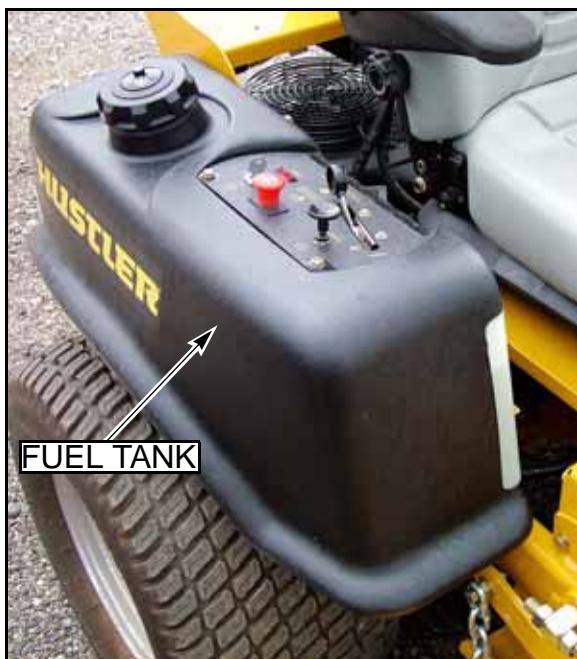


FIG. 35

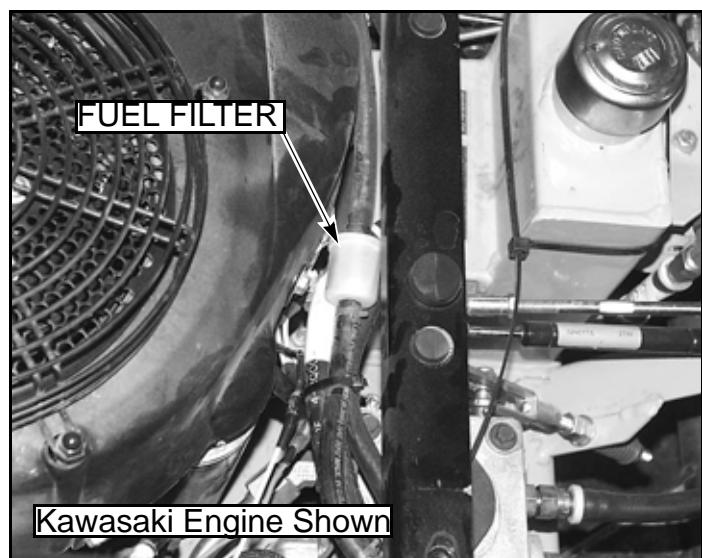


FIG. 36

The fuel tanks are located in the tractor's fenders. ("FIG. 35") Total capacity for the fuel tanks is 15 U.S. gallon (56.8 liter)

Use regular unleaded gasoline with an octane rating of 87 or higher.

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The fuel filter ("FIG. 36") is installed in the fuel line between fuel tanks and engine fuel pump. Replace filter annually or after every 500 hours of operation, whichever occurs first.

When replacing the fuel filter, check the fuel line hoses and fuel shut-off valve grommet for any cracks or leaks. Replace as needed.

Hustler Z tractors are equipped with a fuel shutoff valve located on the right fuel tank mount ("FIG. 37"). Rotate the valve to the middle position (shown) to prevent fuel flow to the fuel pump. The forward position allows fuel to flow from the right fuel tank to the fuel pump. The rear position allows fuel to flow from the left fuel tank to the fuel pump. Close this valve to prevent fuel flow to the engine when servicing the fuel system or when transporting the unit on a trailer or truck.

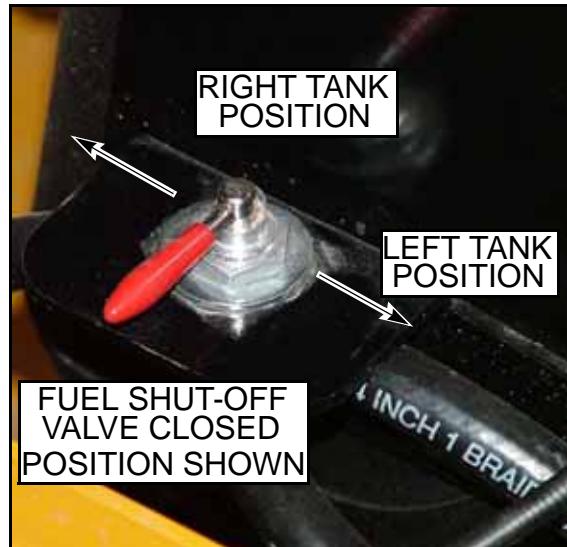


FIG. 37

### Engine oil and filter

Check engine oil daily and after every 4 hours of operation. Crankcase dipstick and oil filler tube are located at the rear of the machine ("FIG. 38"). Tractor must be sitting level when checking oil. Refer to engine manual and maintenance schedule for oil recommendation and capacities.

Change the engine oil and filter after the first 5 hours of operation, per the engine manufacturer's recommendations after that. If tractor is being operated in extremely dirty conditions, then it is recommended oil be changed more frequently.

The oil drain and oil filter are located at the rear of the engine "FIG. 38".

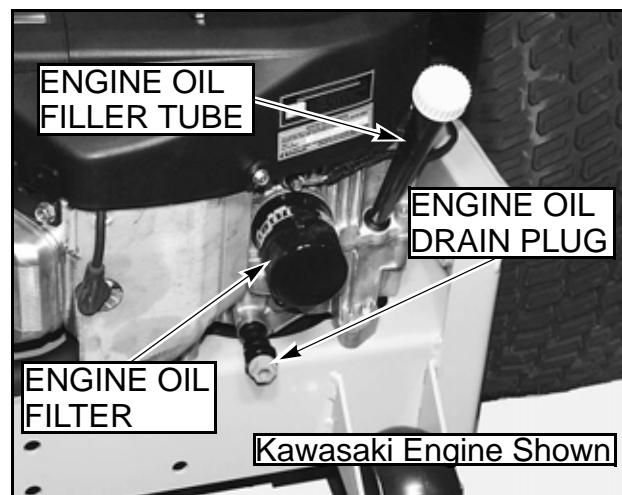


FIG. 38

## Engine air filter

Perform engine air filter maintenance per the scheduled maintenance chart. See "SERVICE AT INTERVALS INDICATED" on page 10-20.

A specially designed dry filter is standard equipment on the Hustler Z and Super Z tractors and supplies clean combustion air to the engine "FIG. 39".

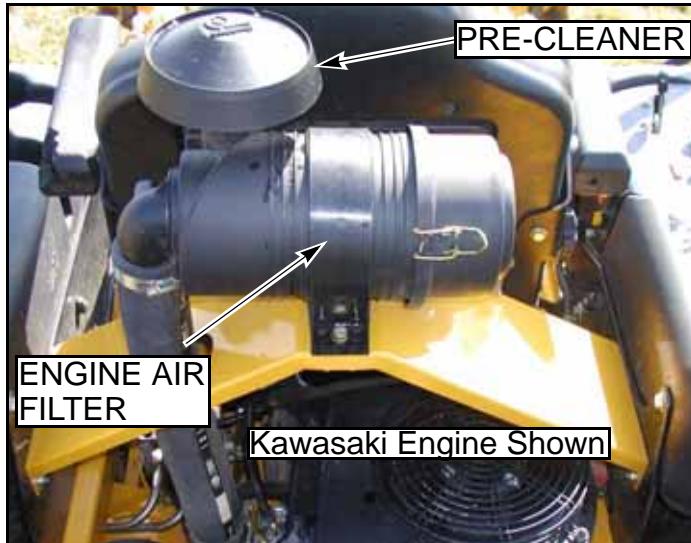


FIG. 39

### RECOMMENDED SERVICE PROCEDURE

Many engine failures can be attributed to improper air cleaner servicing. Ingested dust and dirt will cause cylinder, piston and bearing damage in a few hours. "Dusted" engines will result from:

1. Overservicing the air filter element.
2. Improper installation.
3. Damaged filter, seals or canister.
4. Incorrect air filter element size.
5. Use of poorly designed aftermarket air filter elements.

Air cleaner servicing is an inexpensive maintenance check that can prevent costly non-warrantable premature engine damage.

### Overservicing

Overservicing occurs when an air filter element is removed for cleaning or replacement before it is necessary. Each time the filter is removed a small amount of dirt and dust could fall in the intake system. This accumulated dirt can cause a dusted engine. It only takes a few grams of ingested dirt over the normal service life of an engine to cause a dusted engine.

**Do not clean element, replace with a new element only.** Cleaning used air filter elements, through improper cleaning procedures, can get dust on the inside of the filter causing dirt ingestion and engine failure.

It is important to note that whenever an air filter element is cleaned by **any method**, the person or company performing the cleaning assumes responsibility for the integrity of the filter from then on. **The Donaldson warranty for air filters expires upon cleaning or servicing in any manner because the condition of the filter after servicing is completely out of their control.** Therefore, on a dust ingested engine failure, there will be no warranty consideration if the air filter element has been cleaned or serviced in any manner.

A partially dirty air filter element works better than a new element. Therefore, a dirty filter element is not

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bad for the engine unless it is excessively restricting the air flow and engine performance is affected. The reason is simple. The media in the filter must be porous to allow air to pass through it. When dirty air passes through the filter, the dirt plugs some of the holes in the media and actually acts as part of the filter media. When the next round of dirt enters, the first dirt helps filter out even smaller particles making the filter more efficient at stopping dirt from entering the engine. This is referred to as barrier filtration.

Of course, at some point the filter media becomes too clogged to allow air to pass.

The mowing conditions will determine the frequency of air filter element changing.

## **Improper installation of an air filter element**

Dust must not leak past the seals on each end of the air filter element. The filter must be aligned within the canister and properly seated for an effective seal so that no dirt can enter the engine.

## **Damaged filter, seals or canister**

Never bang or bump the filter element against the tire or any solid object, as dust and dirt particles will be forced through the media causing continual passing of dirt into the engine. Visually inspect the outside of the air cleaner canister periodically for external damage and replace if necessary.

## **Incorrect air cleaner element**

Use only the correct Donaldson air filter element, Hustler part number 785261, which is designed to fit the canister properly.

Hustler air filter elements have the correct media composition, filter area, micron size and dimensions. Always use genuine Hustler filters. Many aftermarket filters have been found to be incompatible with Hustler's canisters and engines.

The air filter must remain intact to block passage of dirt and foreign particles from entering the engine. Being inclined to disbelieve the need for more expensive air filter elements used on gasoline engines may cause some individuals to opt for a less expensive part.

The filter element must be sufficient size and construction to withstand stresses, caused by rapid cycling of the air volume demanded by the engine, without cracking or tearing under fatigue and pressure (especially diesel engines). Therefore, Hustler Turf Equipment and the engine manufacturers have carefully selected a reliable filter designed to fit the needs of the engines. The filter specified is a Donaldson filter, Hustler part number 785261.

Owners should be reminded that failure to use original equipment replacement parts is an "alteration" and will not be considered for warranty in the event of engine damage.

## **Recommended service procedure**

1. Release clamps and remove element. Clean the canister with a damp cloth.
2. Before installing a new element, inspect it by placing a bright light inside and rotate the element slowly, looking for any holes or tears in the paper. Also check gaskets for cuts or tears. Do not attempt to use a damaged element which will allow abrasive particles to enter the engine.
3. Reinstall the dust cup. Make sure it seals all the way around the air cleaner body, then tighten the clamps.
4. Check all fittings and clamps periodically for tightness and inspect hoses for holes or cracks.
5. Periodically check the intake hose for signs of ingested dust. Locate and repair the source of ingested dirt.
6. Never operate a machine without an air filter installed.

## **Air restriction indicator**

Any unit with a Kohler or Kawasaki engine will have an air restriction indicator installed in the air cleaner "FIG. 40".

Replace the element whenever the restriction indicator shows reaches the change filter red line. Check the indicator daily and replace element as needed or annually whichever occurs first.

Reset the indicator by pushing in on the yellow button after each element change "FIG. 40"

A restriction indicator takes the guesswork out of air cleaner servicing and allows you to safely benefit from the filter's optimum performance.



FIG. 40

## General engine maintenance

Detailed instructions and recommendations for break-in and regular maintenance are specified in the Engine Owner's manual. Please refer to this manual for engine servicing, lubricating oil levels with quality and viscosity recommendations, bolt torques, etc. The engine warranty is backed by the manufacturer. Special attention should be paid to applicable data which will not be duplicated here.

## Belt replacement

"FIG. 41", "FIG. 42", "FIG. 43" & "FIG. 44" show diagrams and descriptions of the unit's belt drive systems. Inspect these belts frequently for wear and serviceability. Replace a belt that shows signs of severe cuts, tears, separation, weather checking and cracking, or burns caused by slipping. Slight raveling of belt covering does not indicate failure, trim ravelings with a sharp knife.

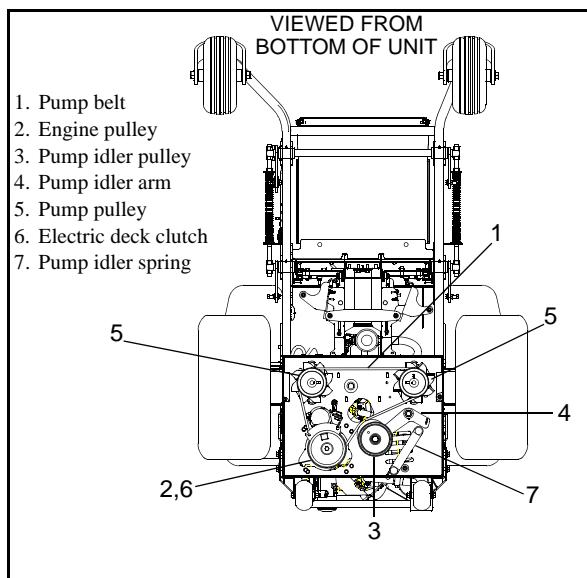


FIG. 41

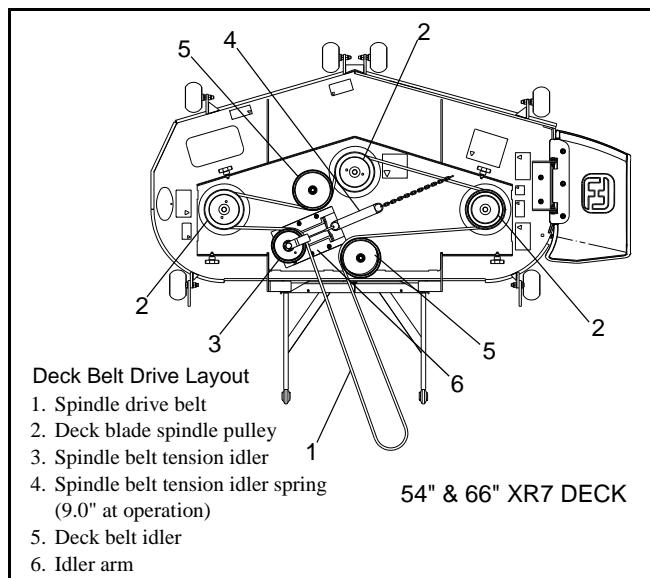


FIG. 42

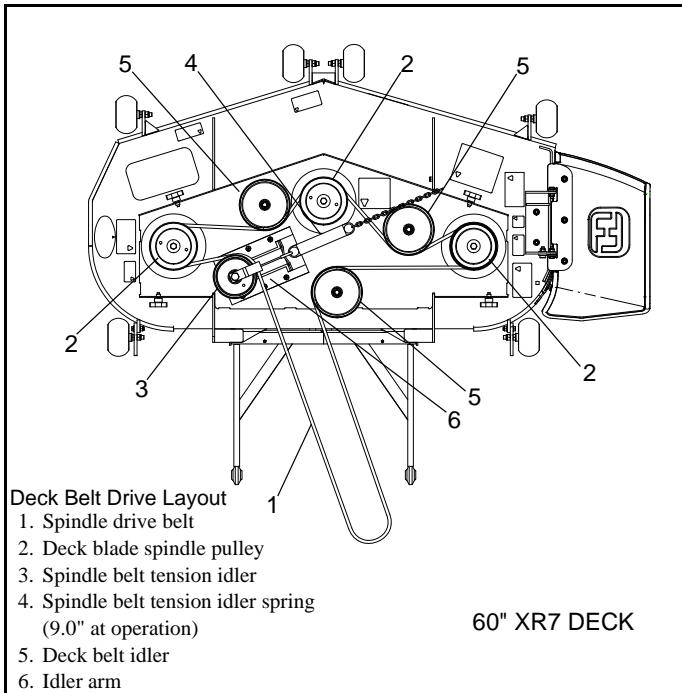


FIG. 43

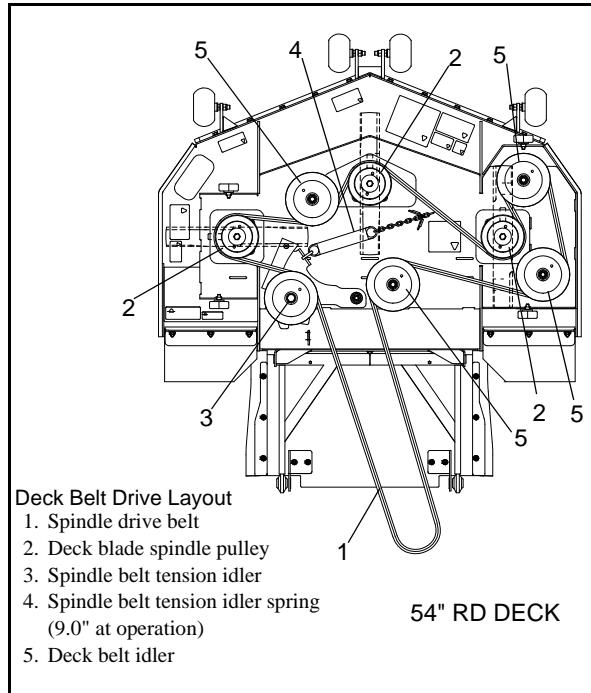


FIG. 44



**WARNING:** If the pump belt fails, loss of control will occur especially when operating on a slope. **If you lose steering control while operating the machine, place the steering control levers in the park brake position immediately. Inspect the machine and involve your Hustler dealer to resolve the problem before continuing to operate.**

Inspect the belt pulley grooves and flanges for wear. A new belt, or one in good condition, should never run against the bottom of the groove. Replace the pulley when this is the case, otherwise belt will lose power and slip excessively.

Never pry a belt to get it on a pulley as this will cut or damage the fibers of the belt covering.

Keep oil and grease away from belts, and never use belt dressings. Any of these will destroy the belt composition in a very short time.

## Mower blade maintenance

Check the mower blades daily, they are the key to power efficiency and well groomed turf. Keep them sharp, a dull blade will tear rather than cut the grass, leaving a brown ragged top on the grass within a few hours. A dull blade also requires more power from the engine.

Replace any blade which is bent, cracked or broken.



**WARNING:** Never attempt to straighten a bent blade by heating, or weld a cracked or broken blade as the blade may break and cause serious injury.



**DANGER:** Never work with blades while engine is running or deck clutch switch is engaged (on). Always place deck clutch switch in the disengaged position, place control levers in the park brake position and turn engine off and disconnect negative battery cable. Block up mower when you must work under it. Wear gloves when handling blades. Always check for blade damage if mower strikes rock, branch or other foreign object during mowing!



**WARNING:** Always wear adequate eye protection when grinding mower blades.

## Mower blade removal

Use a 15/16" wrench to remove the 5/8" cap screw holding the blade to the spindle shaft from underneath.

Sharpen the blades on a grinder following pattern as shown "FIG. 45". Touch-up sharpening can be done with a file.

Check the blades for balance following grinding. A commercial balancing tool is available through most hardware supply stores, or balancing can be done by placing the blade on an inverted line punch or 1/2" bolt. Blade should not lean or tilt. Spin the blade slowly, blade should not wobble. If blade is out of balance, true it up before reinstalling.

Lay the blade on a flat surface and check for distortion "FIG. 46" and "FIG. 47". Replace any distorted blade.

Do not re-use spindle bolts which have stripped, worn or undercut threads. Torque bolts to 118 foot-pounds when reinstalling blades.



**WARNING:** When mounting blades, rotate them after installation to ensure blade tips do not touch each other or sides of the mower.



**WARNING:** Failure to correctly torque the bolt may result in the loss of the blade which can cause serious injury.



**WARNING:** Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves and use extra caution when servicing them.

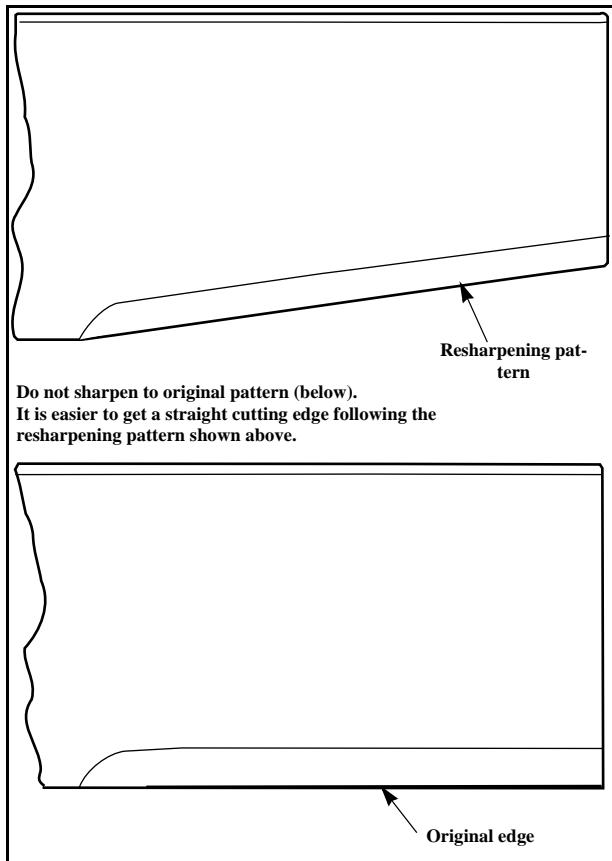


FIG. 45

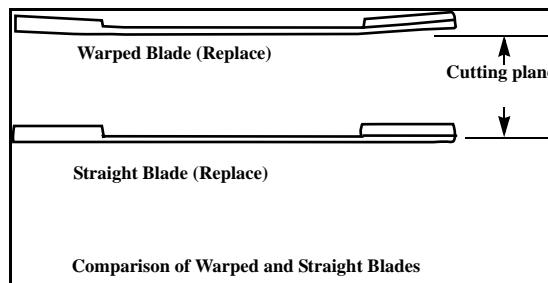


FIG. 46

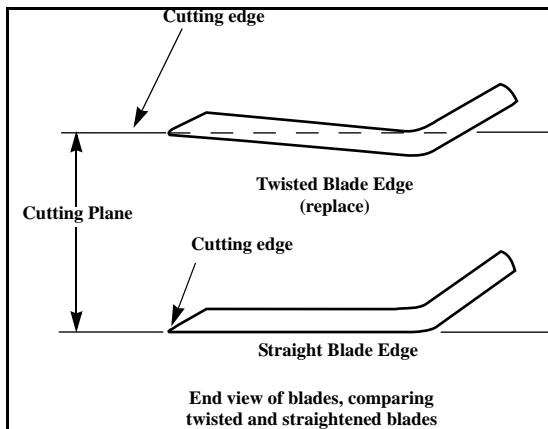


FIG. 47

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# Adjustment

## Introduction

Your Hustler Z was adjusted before it left the factory and was checked during predelivery setup. However, after start-up and continued use, a certain amount of break-in wear will cause some adjustments to change.

Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.

Clear away heavy build-up of grease, oil and dirt, especially in the area of reservoir and oil and engine combustion air; minute dust particle are abrasive to close-tolerance engine and hydraulic assemblies.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Hustler service center when assistance is needed.

## Steering linkage

The neutral adjustment for the control levers in the neutral position is discussed in this section.

The tractor steering has been factory adjusted to eliminate creeping when the control levers are in the neutral position "FIG. 48". However, should the tractor begin to creep, the control lever linkage can be adjusted as follows:

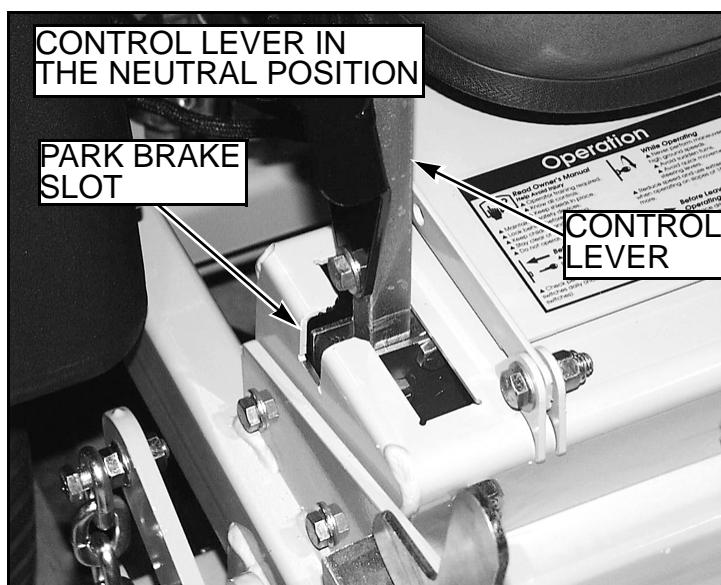


FIG. 48

## Control Lever Neutral Adjustment

Before considering any adjustment, check the tire air pressure and make certain hydraulic system oil is at operating temperature. Unequal tire pressure will cause the tractor to drift to one side. Refer to tire pressure information in the Maintenance section of this manual.

Fine adjustment to the unit's steering is made with the adjustable pump linkage rods located between the control lever and pump arms "FIG. 49".

Neutral is properly adjusted when the control levers are in the neutral position and the drive wheels are not turning.

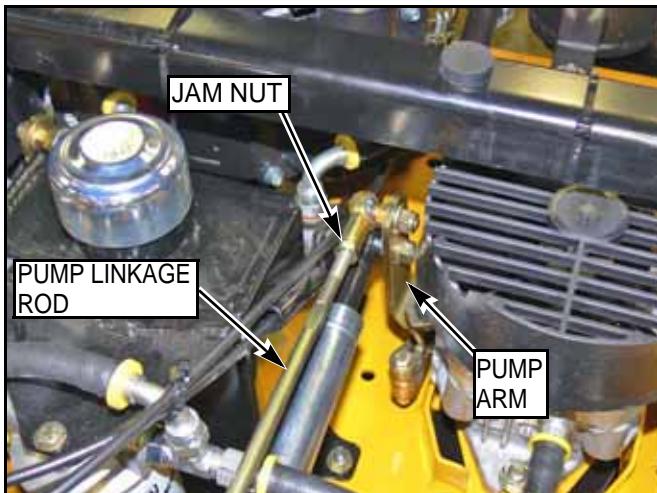


FIG. 49

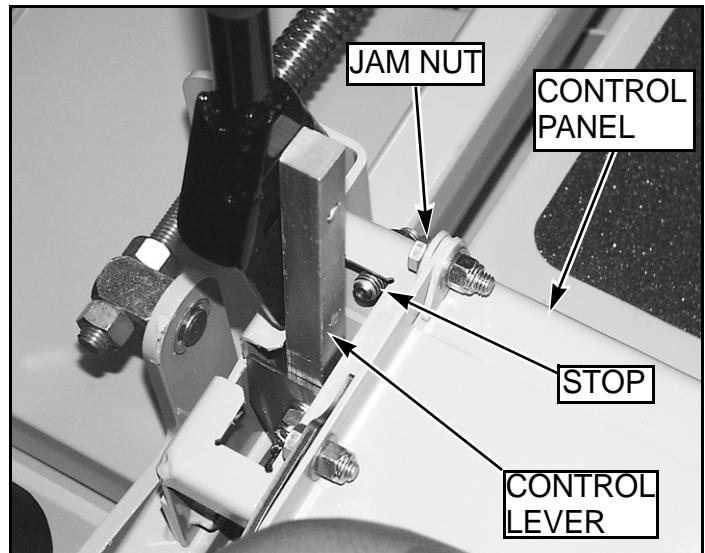


FIG. 50

If the tractor creeps in the neutral position the control linkage may be adjusted as follows:

1. Raise and block the tractor up so the drive wheels are off of the floor.



**WARNING:** Never work under the machine or attachment unless it is safely supported with jack stands. Make certain machine is secure when it is raised and placed on the jack stands. The jack stands should not allow the machine to move when the engine is running and the drive wheels are rotating. **Use only certified jack stands.** Use only appropriate jack stands, with a minimum weight rating of 2000 pounds to block the unit up. Use in pairs only. Follow the instructions supplied with the vehicle stands.

2. Position the control lever in the neutral position. Disengage the deck clutch.
3. Start the engine and observe which way the wheels are rotating.

4. If wheel(s) are rotating forward, loosen the jam nuts on the pump linkage rods and rotate the rod to lengthen the steering control linkage until the wheel(s) come to a stop "FIG. 49". Repeat for the opposite side if necessary.

**NOTE:** The left linkage controls the left hydraulic pump and the right linkage controls the right hydraulic pump.

5. If wheel(s) are rotating in reverse then loosen the jam nuts on the pump linkage rods and rotate the rod to shorten the steering control linkage until the wheel(s) come to a stop "FIG. 49". Repeat for the opposite side if necessary.

**NOTE:** The left linkage controls the left hydraulic pump and the right linkage controls the right hydraulic pump.

6. When both wheels remain in neutral, tighten the jam nuts to lock the turnbuckle in place.
7. Test again by moving the control levers forward and backward before returning them to the neutral position. If the tires are in neutral, the unit is now ready for operation.
8. After adjusting for neutral it may be necessary to re-adjust the control lever stop "FIG. 50".

## Control lever stops

The control lever stops "FIG. 50" are designed to do two things: First, and most important, they must keep the pumps from bottoming out internally. Secondly, the stops may be adjusted to help drive straight when the control levers are pushed forward against the stops.

To keep the pumps from bottoming out internally use the following procedure:

1. To make the first adjustment the tractor engine must NOT be running.
2. Check to make sure the control levers are against the stops before the pumps are bottomed out internally.

To do this, gently and slowly move the control levers forward and feel if there is some resistance on the pump lever before the control levers hit the stops. Check one side at a time. If you sense that the

pump arms are stopping the forward motion of the control arms, loosen the jam nut on the adjustable stop of the corresponding side and turn the stop (set screw) inward to stop the control levers slightly before the pump bottoms out. Lock in place when the adjustment is correct by re-tightening the jam nut.

3. Do this for each side.

To adjust the stops for driving straight when control levers are against the stops during operation:

1. Determine which drive tire is rotating too fast when both control levers are against the stops. Then stop the tractor and loosen the lock nut on the side which is rotating too fast and turn the stop (set screw) inward to stop the control lever sooner. Tighten the lock nut on the stop and test again. Repeat this procedure until unit drives straight.

**NOTE:** Since this is a hydrostatic drive, variables such as temperature of oil, efficiency of pumps and motors, tire pressure etc. may effect the consistency of the ability to rely on the stops to drive straight without the operator making minor steering adjustments with the control arms.

## Steering dampener

The steering dampener, "FIG. 51", is spring loaded to return the control levers to the neutral position from the reverse position. This gives the operator a sense of neutral during operation.

To set the steering dampeners in the correct operating position follow these steps:

1. Place the control lever in the neutral position.
2. Loosen the steering dampener's front ball stud.
3. Pull the dampener spring housing pass the point that the internal spring is engaged.
4. Release the dampener spring housing and allow the internal spring to bring the housing back to the neutral position.
5. Tighten the nut on the steering dampener's front ball stud.

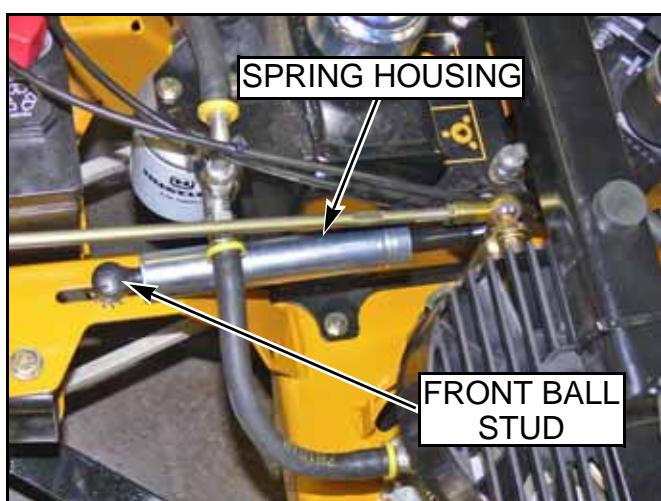


FIG. 51

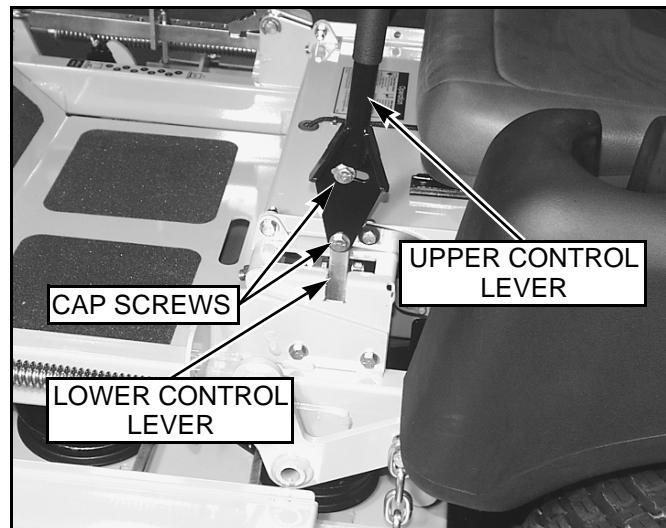


FIG. 52

## Control lever adjustment

The control levers can be adjusted for operator comfort. By loosening the cap screws that attaches the upper control lever to the lower lever "FIG. 52", the upper control lever can be pivoted to fit the operator's personal preference.

The control levers should be adjusted so that they align with each other when in the neutral position.

## Park brake adjustment

Occasionally check the park brakes and adjustment using the following method:

1. Position the control levers in the neutral position. Disengage the deck clutch.



**WARNING:** Never work under the machine or attachment unless it is safely supported with jack stands. Make certain machine is secure when it is raised and placed on the jack stands. The jack stands should not allow the machine to move when the engine is running and the drive wheels are rotating. **Use only certified jack stands.** Use only appropriate jack stands, with a minimum weight rating of 2000 pounds to block the unit up. Use in pairs only. Follow the instructions supplied with the vehicle stands.

**NOTE:** The front brake link is not adjustable. "FIG. 53"

2. Raise and block the tractor up so the drive wheels are off of the floor.
3. Open the hydraulic pump's bypass valve "FIG. 54", on the side that is being adjusted, by turning bypass valves counter clockwise one-half to one revolution. The valve stems on each hydraulic pump are located near the top and are identified as a hex stud.

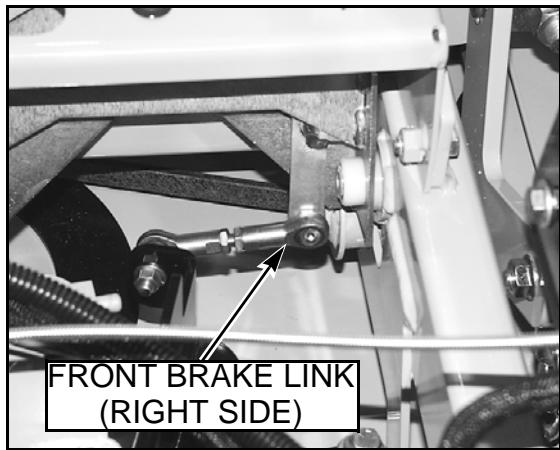


FIG. 53



FIG. 54

4. Rotate the tire. The tire should rotate. Remember hydraulic oil resistance will prevent the tire from rotating freely even with the bypass valves open. There should be no resistance from the brakes at this point.
5. Move the control lever to where it is just inside (1/8") the park brake slot "FIG. 55".  
**NOTE:** When the control lever is against the outside edge of the the slot, the brakes should **not** be engaged.
6. Rotate the tire. If the brake is adjusted properly the tire will still rotate but friction will start to become noticeable here. However, if no brake resistance is noticed, the brake needs adjusted as follows:
7. Loosen the brake linkage jam nuts "FIG. 56".

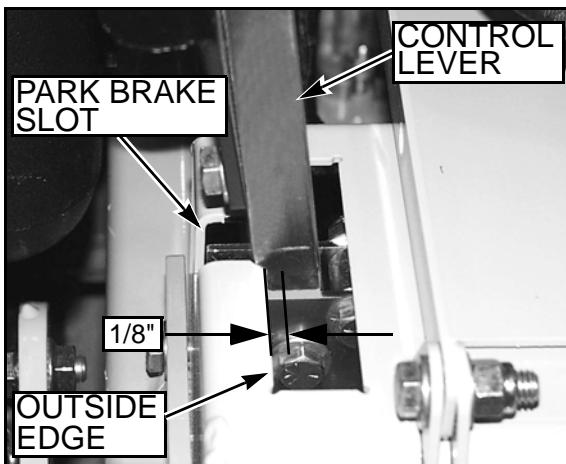


FIG. 55

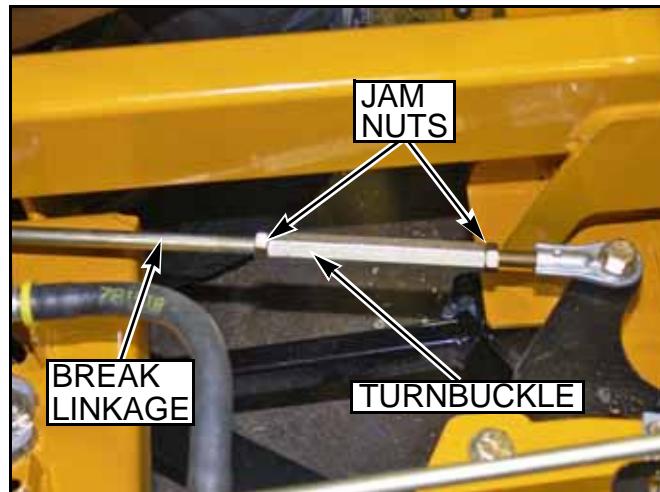


FIG. 56

8. Rotate the tire and at the same time rotate the turnbuckle to shorten the length of the brake linkage to increase the brake pressure. When you feel the brake begin to engage, stop adjusting the turnbuckle. Re-tighten the jam nuts on the turnbuckle.
9. Place the control lever in the park brake slot "FIG. 55". The tire should not rotate when the control lever is in the park brake position.
10. Place the control lever in the neutral position. The tire should rotate freely.
11. Close the hydraulic pump's bypass valve.
12. Repeat steps 3 thru 11 for the other side.
13. Remove the jack stands and lower the unit. It is now ready to operate.

### Hydraulic pump belt adjustment

The pump drive belt tension remains constant by means of a tension idler and spring "FIG. 57". There is no tension adjustment of this belt.

**NOTE: Replace the belt every 400 hours or every two (2) years whichever comes first.**

**WARNING:** If the pump belt fails, loss of control will occur especially when operating on a slope. If you lose steering control while operating the machine, place the steering control levers in the park brake position immediately. Inspect the machine and involve your Hustler dealer to resolve the problem before continuing to operate.

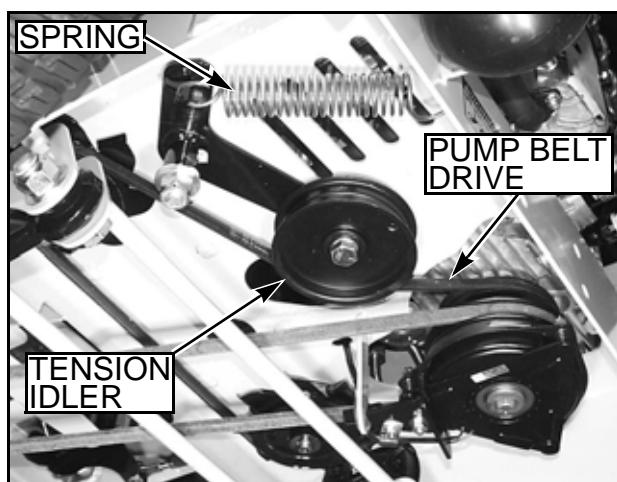


FIG. 57

## Deck drive belt adjustment

The spindle belt tension remains constant by means of a tension idler and spring "FIG. 58". The spring tension should be such that the belt does not slip under normal operating load conditions, assuming the belt is not excessively worn or damaged. As belt stretches and wears in, adjustment may become necessary. To increase belt tension, move the spring chain one (or more) link(s) at the anchor bracket "FIG. 58". Installed spring length should be  $9.0" \pm .3"$  (22.8 cm  $\pm .76$  cm) originally with adjustments of .60" (15.2mm) per chain link "FIG. 59".

**IMPORTANT:** Do not over tension the spring to compensate for a badly worn belt or pulley.

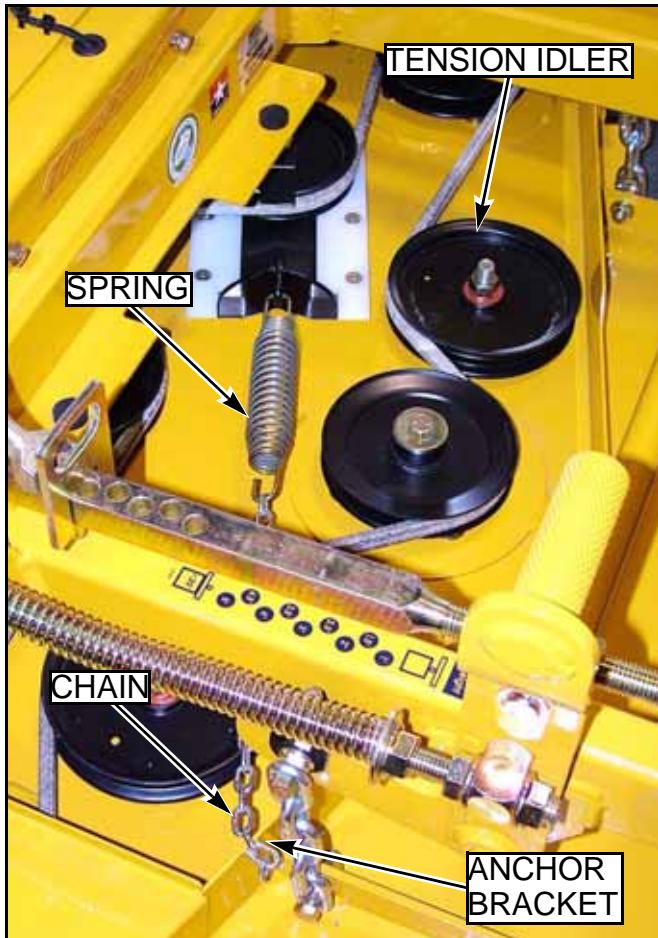


FIG. 58

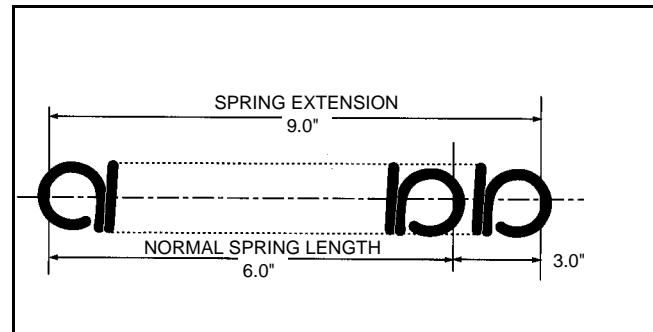


FIG. 59

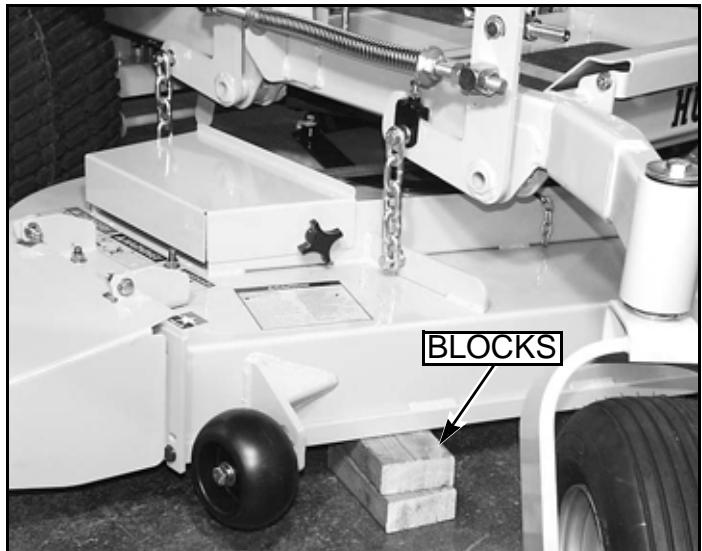


FIG. 60

## Engine RPM setting

The Hustler Z is designed so that the engine will run at 3600 rpm static pump load only. At this speed the hydraulic pumps are running at their maximum rated speed.

## Deck leveling and height adjustment

The mower deck has three areas that may need to be checked and adjusted periodically. Before considering any mower deck leveling adjustments, check that the tire air pressure is within the specified range.

## Deck level adjustments

Leveling the deck must be done in the following manner and order:

1. Check tire pressures to make certain they are properly inflated before starting to level deck. The recommended pressures are as follows:

Drive wheels tire pressure ..... 8 - 12 psi

Gauge wheels tire pressure..... 8 - 12 psi

**WARNING:** Stop engine. Make sure deck clutch switch is **in the down (OFF) position**. Place control levers in the brake position before leaving machine.

2. Park the unit on a flat surface.
3. Raise deck and place 3" block under the back of the deck and a 4" block under the front of the deck "FIG. 60". This will set the cutting height at 3-1/2".  
**NOTE:** Back of deck will automatically be set 1/4" higher.
4. Set cutting height at 3-1/2" in the height indicator by placing the height adjusting stop in the 3-1/2" hole, and turning the height stop so that the pin side is against the stop handle "FIG. 61"
5. Clamp the height adjusting stop against the stop handle "FIG. 61". This will assure that the height will not move during the setting process. Otherwise, spring pressure from the deck lift springs will tend to pull the stop away from the handle.

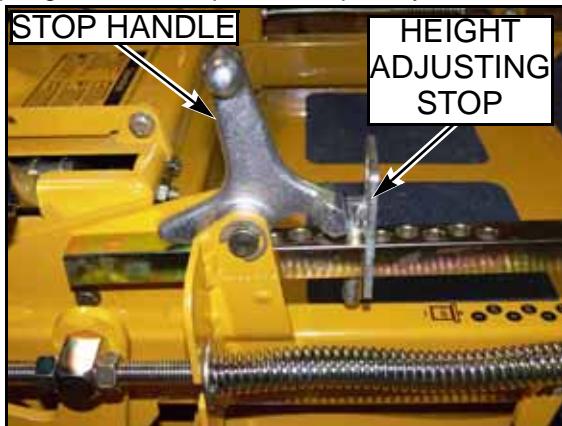


FIG. 61

6. Loosen all nuts on the deck lift threaded rods, and the hardware on the adjuster (on the right front), until **all** the deck lift chains are loose, **and** the deck is sitting tightly on all four blocks "FIG. 62", "FIG. 63", "FIG. 64".

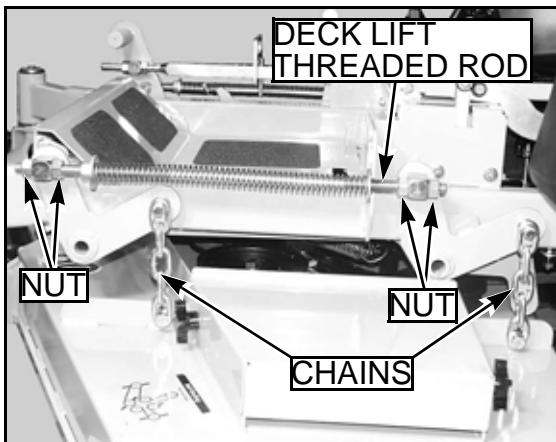


FIG. 62

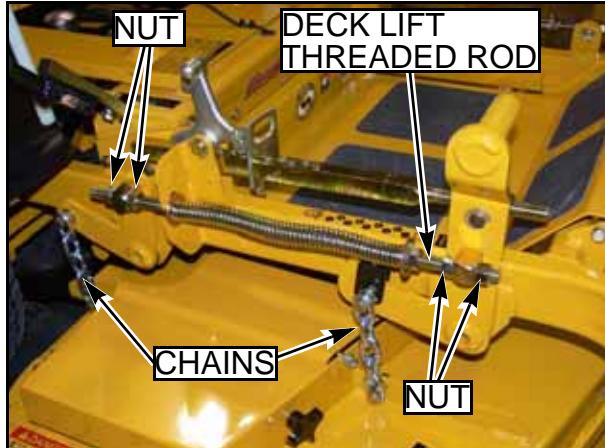


FIG. 63

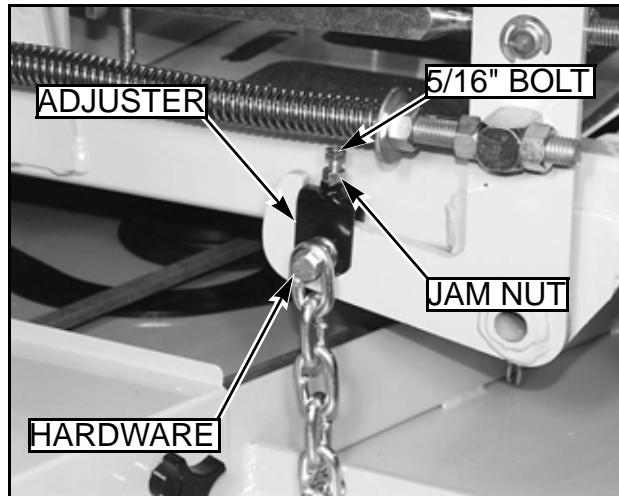


FIG. 64

7. Loosen the two nuts on the front of height indicator so that the foot pedal is free "FIG. 65".
8. Start the leveling process on the **left front** of the tractor.
9. Set the amount of threads protruding on the deck lift rod from the lift block at approximately 1" "FIG. 66".
10. Jam both nuts against the block.
11. Push or pull on the deck lift foot pedal until the chain on the left front just becomes tight, making sure that the deck stays tight against the 4" block.
12. While keeping the chain tight, tighten the nuts against the deck lift block on the height indicator rod "FIG. 65".
13. Go to the right front of the tractor.
14. Loosen the 5/16" jam nut on the adjuster lift chain "FIG. 64", and back the adjuster bolt out to allow the adjuster to move up and down freely.
15. Be sure that adjuster is free to move up and down.
16. Tighten the adjuster bolt until the chain just becomes tight, making sure that the deck stays tight against the 4" block.
17. Tighten the adjuster bolt jam nut to prevent the adjuster bolt from moving "FIG. 64"
18. Tighten the hardware holding the chain and adjuster onto the deck lift arm.
19. Go to the right rear of the tractor.
20. Make sure that there is still slack in the chain. If not, loosen the two nuts on the block holding the threaded rod until there is slack in the deck lift chain "FIG. 63".
21. Tighten the appropriate nut until the chain just becomes tight, making sure that the deck stays tight against the 3" block.
22. Tighten the other nut on the opposite side of the block, and jam them tightly together against the block.
23. Go to the left rear of the tractor.
24. Make sure that there is still slack in the chain. If not, loosen the two nuts on the block holding the threaded rod until there is slack in the deck lift chain "FIG. 62".
25. Tighten the appropriate nut until the chain just becomes tight.
26. Tighten the other nut on the opposite side of the block, and jam them tightly together against the block.
27. Compress the deck lift assist springs so that there is 1" of space between the front nut and on the spring and the rear nut on the deck lift block "FIG. 66". Typical both sides.
28. When completed, all chains will be tight, and deck cutting height will be set to the deck

height indicator.

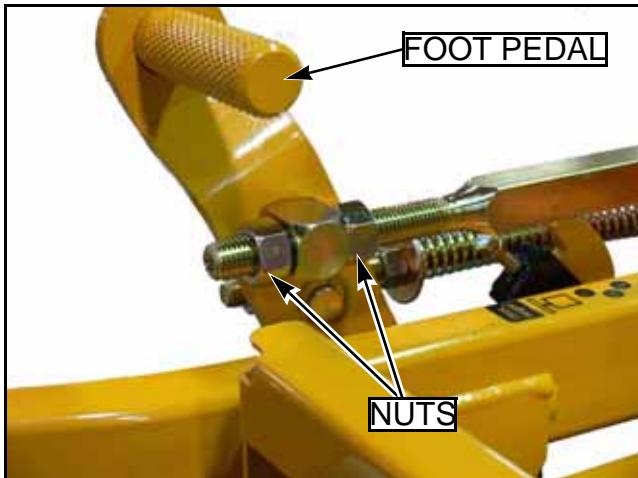


FIG. 65

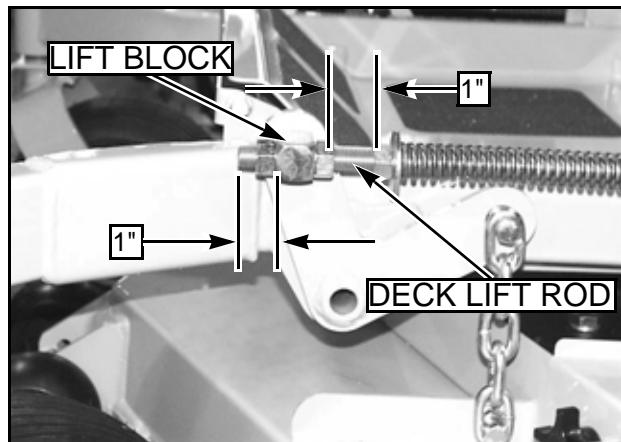


FIG. 66

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787689	5-13	796219	4-3, 5-7	799312	5-3, 5-7
787713	5-13, 5-17	796227	7-28	799320	5-3, 5-7, 5-11, 5-13, 5-17, 5-23
787788	5-25	796235X	7-5, 7-9, 7-13, 7-25, 7-27	799338	5-9
788018	5-11, 5-17	796250	6-6	799353	9-4, 9-5, 9-6
788026	5-17	796524	5-3, 5-7, 5-9, 5-11	799395	9-5
788166	7-3, 7-7, 7-11, 7-19, 7-21, 7-23	796672	5-17	808477	2-2
788216	5-17	796680X	7-25, 7-27	808485	7-3, 7-7, 7-11
788943	5-3, 5-7, 5-11, 5-17	796698	7-29	808493	2-2, 7-3, 7-7, 7-11
788968	9-3	796714	7-25, 7-27	927582	1-2
789131	5-3, 5-7, 5-11, 5-13, 5-17	796722	7-25, 7-27	927723A	1-1
789503	9-3	796748	5-9	927749A	1-1
789537	1-2, 6-3	796755	5-9	927756A	1-1
791251	4-11	796805	1-1	927772A	1-1
791830	9-3	796953	9-7	927798A	1-1
792002	7-5, 7-9, 7-13, 7-25, 7-27	797035	5-19, 5-21	927806A	1-1
792192	5-3, 5-7	797084	5-19, 5-21	927814A	1-1
		797449	7-5, 7-9, 7-13	928218	1-2
		797456	8-9, 8-11	928432	1-1
		797472	8-9, 8-11		